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&lt;210&gt; 4305

&lt;211&gt; 3400

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4305

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<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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Leu	Thr	Glu	Leu	Asp	Val	Ser	His	Asn	Arg	Leu	Thr	Ala	Leu	Gly	Ala
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&lt;210&gt; 4307

&lt;211&gt; 947

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4307

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actcacgctt actggaaccg agcagtctac tgcagctttg gctgaaagga ttttattata  
1680  
gtgaacagcc atgtgattct tgaccagctg gagagtgctt agtctgagag aagaggagtc  
1740  
agtgcaaaaa gcattacttt tgggtgctca gtgtccttta aataggcacg gtggaccata  
1800  
tctgggaagg acagaggttg ctctgactct ccggctgcca ttcattgctta gtccctctgc  
1860  
agccgccgca gggacacgct gtataccctt cggctccttc cgcgccgccc accccggcag  
1920  
tggaggac  
1928

&lt;210&gt; 4310

<211> 599  
 <212> PRT  
 <213> Homo sapiens

<400> 4310

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Met Asn Gly Ser Arg Arg Val Arg Ala Thr Ser Val Leu Pro Arg Tyr
 1             5             10             15
Gly Pro Pro Cys Leu Phe Lys Gly His Leu Ser Thr Lys Ser Asn Ala
      20             25             30
Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
      35             40             45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
      50             55             60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
65             70             75             80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
      85             90             95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
      100            105            110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
      115            120            125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
      130            135            140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
145            150            155            160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
      165            170            175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
      180            185            190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
      195            200            205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
      210            215            220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
225            230            235            240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
      245            250            255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
      260            265            270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
      275            280            285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
      290            295            300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
305            310            315            320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
      325            330            335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
      340            345            350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
      355            360            365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
      370            375            380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385								390								400
Lys	His	Leu	Glu	Glu	Glu	Lys	Met	Arg	His	Leu	Leu	His	Val	Leu	Lys	
				405				410				415				
Val	Asp	Leu	Gly	Cys	Thr	Ser	Glu	Glu	Asn	Ser	Val	Lys	Gln	Asn	Asp	
				420				425				430				
Val	Asp	Met	Leu	Asn	Val	Phe	Asp	Phe	Glu	Lys	Ala	Gly	Asn	Ser	Glu	
				435				440				445				
Pro	Asn	Glu	Leu	Lys	Asn	Glu	Ser	Glu	Val	Thr	Ile	Gln	Gln	Glu	Arg	
				450				455				460				
Gln	Gln	Tyr	Gln	Lys	Ala	Leu	Asp	Met	Leu	Leu	Ser	Ala	Pro	Lys	Asp	
465				470				475				480				
Glu	Asn	Glu	Ile	Phe	Pro	Ser	Pro	Thr	Glu	Phe	Phe	Met	Pro	Ile	Tyr	
				485				490				495				
Lys	Ser	Lys	His	Ser	Glu	Gly	Val	Ile	Ile	Gln	Gln	Val	Asn	Asp	Glu	
				500				505				510				
Thr	Asn	Leu	Glu	Thr	Ser	Thr	Leu	Asp	Glu	Asn	His	Pro	Ser	Ile	Ser	
515				520				525				530				
Asp	Ser	Leu	Thr	Asp	Arg	Glu	Thr	Ser	Val	Asn	Val	Ile	Glu	Gly	Asp	
530				535				540				545				
Ser	Asp	Pro	Glu	Lys	Val	Glu	Ile	Ser	Asn	Gly	Leu	Cys	Gly	Leu	Asn	
545				550				555				560				
Thr	Ser	Pro	Ser	Gln	Ser	Val	Gln	Phe	Ser	Ser	Val	Lys	Gly	Asp	Asn	
				565				570				575				
Asn	His	Asp	Met	Glu	Leu	Ser	Thr	Leu	Lys	Ile	Met	Glu	Met	Ser	Ile	
				580				585				590				
Glu	Asp	Cys	Pro	Leu	Asp	Val										
595																

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<210> 4311
<211> 432
<212> DNA
<213> Homo sapiens
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<400> 4311
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cagagcattt tgtttaatat caacgaagcc atggctacga gggctaattgt ggggaaaagg
120
aaaaacataa ccaactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctcgtcctta gttgtcctta ctttagaaat
300
gagactggag gggaaggcga caggcggaat gcgctctctc gagccaactc atcctctttc
360
agttctgggg aaagctgctc tttcgaatcg tcactcagct ctcactgcac aaatgcaggt
420
gtctccgtct tg
432
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<210> 4312
<211> 144
<212> PRT
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<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
 1           5           10          15
His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
          20          25          30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
          35          40          45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
          50          55          60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
65          70          75          80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
          85          90          95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
          100         105         110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
          115         120         125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
          130         135         140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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aggtgctgcc tgacagggttc ttctctccct gtctctggtc attgatccat ctctttgtcc
120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcaccccaac tctatgcctt acccctccca acccaacagc
240
atttgcagtt tgcaaaatat acagacccaa gtcttgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgctcagg gcttctctcc aatgccagcc ctgccactcc ttctcaccc
360
tccttgagac ctctctgct gcttgtctat cccaacggcc ctgctcccct cccttcctgc
420
ccttcaccag ctttctggga caccatgccc tgaggaaggg acctttggtt ttctctaaac
480
atctttgaag ggctgaggca gtcagggtcg gctgccttgt cactctttat ttggaagcca
540
ctcaaaccat tccaagaag agggacctca gctggcaatc tggaaacctg gcccaggtct
600
gggcagatgt cttcacttct cctaccttcc cagtcttggt atcctgtgat gagcaccagg
660
atggccctgt ggtccctaga gcacccctca tgctgtaggg tcctgcagcc ccaccccttc
720
tctactgggc cctggtatcc tggtctctct ctcaactctg ccactgatct ctgtgcctta
780

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gtttacttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccaggtgat  
 840  
 gtgggtcccc aaggctgggc tttgcagctg tggcccagct ccttagtgct gcccaggaga  
 900  
 caccaggctg ctccagaatga ggtgactgcg ggcaac  
 936

<210> 4314

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4314

Met	Ser	Ser	Leu	Leu	Leu	Pro	Ser	Gln	Ser	Cys	Asp	Pro	Val	Met	Ser
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Thr	Arg	Met	Ala	Leu	Trp	Ser	Leu	Glu	His	Pro	Ser	Cys	Cys	Arg	Val
			20					25					30		
Leu	Gln	Pro	His	Pro	Phe	Ser	Thr	Gly	Pro	Trp	Tyr	Pro	Gly	Ser	Ser
			35					40					45		
Leu	Ser	Ser	Ala	Thr	Asp	Leu	Cys	Ala	Leu	Val	Tyr	Phe	Ser	Ala	Arg
			50					55					60		
Gly	Thr	His	Pro	Lys	Thr	Ile	Ser	Ser	Ser	Phe	Pro	Gly	Asp	Val	Val
65						70				75					80
Pro	Gln	Gly	Trp	Ala	Leu	Gln	Leu	Trp	Pro	Ser	Ser	Leu	Val	Leu	Pro
				85					90					95	
Arg	Arg	His	Gln	Ala	Ala	Gln	Asn	Glu	Val	Thr	Ala	Gly	Asn		
			100					105					110		

<210> 4315

<211> 573

<212> DNA

<213> Homo sapiens

<400> 4315

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 cagagcgatg accatgtgaa gacacaggga agagatggcc acctaccacc acgccatggt  
 120  
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcacatctacc atccaagcca  
 180  
 ccgtcaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccggcc  
 240  
 aagccatggt cacctacca ccaagtcatg gtgcctacc atccaaggag caggcctgga  
 300  
 acagatcctt cccagagcc ctgagtagga gccaacctg ctgacacctt gatctcagac  
 360  
 ttcaagcctc cagaactgtg ggacaatcct tcaactgtcat ttaatccacc cagcatgtgg  
 420  
 tctcttgta cagttgcatt agccagtga cctaccggg cccttctgca gtgcctggc  
 480  
 tcaggagtgg ttctggtcag gaagttctga ggccaggcag gatcgggaca ctccctggaa  
 540  
 agaccggagg gagatatttg ggaaacaaga tgg  
 573

<210> 4316  
 <211> 169  
 <212> PRT  
 <213> Homo sapiens

<400> 4316  
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly  
 1 5 10 15  
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp  
 20 25 30  
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser  
 35 40 45  
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr  
 50 55 60  
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala  
 65 70 75 80  
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg  
 85 90 95  
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn  
 100 105 110  
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp  
 115 120 125  
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr  
 130 135 140  
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly  
 145 150 155 160  
 Ser Gly Val Val Leu Val Arg Lys Phe  
 165

<210> 4317  
 <211> 744  
 <212> DNA  
 <213> Homo sapiens

<400> 4317  
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 60  
 tcccatgccg aaaacataact ccagatatctt aatgaatttc gtgatagccg cttattcaca  
 120  
 gatgttatca tttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc  
 180  
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg  
 240  
 gttgagatca atggtatttt agctgaagct atggaatggt ttttgcagta tgtttatact  
 300  
 ggaaagggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt  
 360  
 cagattagtg ttctccgtga tgcacgtgcc aagttcttgg aggagcaact tgatccttgt  
 420  
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcacaaaa  
 480  
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag  
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggttat tggtaaagag  
 600  
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca  
 660  
 ctgttacacg agctcctgac acatgtgaga ctccctctgt tgcaccccaa ctactttgtt  
 720  
 caaacagttg aagtggacca attg  
 744

<210> 4318  
 <211> 239  
 <212> PRT  
 <213> Homo sapiens

<400> 4318  
 Pro Val Arg Asp Leu Gly Ser Ile Ser Gly Ser Ser His Ala Glu Asn  
 1 5 10 15  
 Ile Leu Gln Ile Phe Asn Glu Phe Arg Asp Ser Arg Leu Phe Thr Asp  
 20 25 30  
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val  
 35 40 45  
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His  
 50 55 60  
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu  
 65 70 75 80  
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile  
 85 90 95  
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln  
 100 105 110  
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu  
 115 120 125  
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser  
 130 135 140  
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe  
 145 150 155 160  
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu  
 165 170 175  
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu  
 180 185 190  
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu  
 195 200 205  
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu  
 210 215 220  
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu  
 225 230 235

<210> 4319  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 4319  
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ccaggccgta gccacagcaa ggaccgaacc ctgggaaaac cagacagcct ttagtgcct  
 120  
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc  
 180  
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg  
 240  
 aaaatgtgca attacgacaa aatcttggcc acaaagaaaa acctagacca tgtcaataaa  
 300  
 atcttaaaag ccaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt  
 360  
 aggccaggtc gaccgcggtc ggagagag  
 388

<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
1				5					10					15	
Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20					25					30		
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
		35					40					45			
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
		50				55					60				
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65					70					75				80	
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
			85					90					95		
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
			100					105					110		
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
		115					120					125			

Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

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 60  
 gaccaggctc cttggtgaga agaccaccac agcggcaggg tccagccaca gcaggcccgg  
 120  
 cgtcccgggtg gaaggcagcc ctgggcggaa cccaggcggt taacgggtca ctaggcagcc  
 180  
 ccagatctgg ggaacagatg agcacgtggg gagctggagt gagctgagca gaagttttgt  
 240  
 gcccgctgc ccccatcccc tccaggccac gttttaga  
 278

<210> 4322  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 4322  
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro  
 1 5 10 15  
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu  
 20 25 30  
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro  
 35 40 45  
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro  
 50 55 60  
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu  
 65 70 75 80  
 Trp Gln Val Leu Gly  
 85

<210> 4323  
 <211> 1542  
 <212> DNA  
 <213> Homo sapiens

<400> 4323  
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 ctgaaagact cgacattcag ccagtttagc ccgatctcca gtgctgaaga gtttgatgac  
 120  
 gacgagaaga ttgagggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg  
 180  
 tcgaatgtgt tgacgggggtc ggctccccag caggactacg ataagctgaa ggcactcgga  
 240  
 ggggaaaact ccagcaaaac tggactctct acgtcaggca atgtggagaa aaacaaagct  
 300  
 gttaagagag aaacagaagc cagttctata aacctgagt tttatgaacc ttttaaagtc  
 360  
 agaaaagcag aggataaatt gaaggaaagc tctgacaagg tgctggaaaa cagagtccta  
 420  
 gatgggaagc tgagctccga gaagaatgac accagcctcc ccagcgttgc gccatcaaag  
 480  
 acaaagtcgt cctccaagct ctcgctctgc atcgctgcca tcgcggtctc cagcgctaaa  
 540  
 aaggcggctt cagactcctg caaagaacca gtggccaatt cgagggaatc ctccccgtta  
 600  
 ccaaaagaag taaatgacag tccgagagcc gctgacaagt ctctgaatc ccagaatctc  
 660  
 atcgacggga ccaaaaaacc atccctgaag caaccggata gtcccagaag catctcaagt  
 720  
 gagaacagca gcaaaggatc cccgtcctct cccgcgggggt ccacaccagc aatccccaaa  
 780  
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggtta  
 840

ttgccagaag tggatcttga ctctggaaag aaaccttccg agcagacagc gtccggtcatg  
 900  
 gcctctgtga catcccttct gtcgtctcca gcatcagccg ccgtcctttc ctctcccccc  
 960  
 agggcgcttc tccagtctgc ggtcgtgacc aatgcagttt cccttcgaga gctcaccccc  
 1020  
 aaacaggtca caatcaagcc tgtggctact gctttctctc cagtgtctgc tgtgaagacg  
 1080  
 gcaggatccc aagtcattaa tttgaagctc gctaacaaca ccacggtgaa agccacggtc  
 1140  
 atatctgctg cctctgtcca gagtgccagc agcgccatca ttaaagctgc caacgccatc  
 1200  
 cagcagcaaa ctgtcgtggt gccggcatcc agcctggcca atgccaaact cgtgccaaag  
 1260  
 actgtgcacc ttgccaacct taaccttttg cctcaggggtg ccaggccac ctctgaactc  
 1320  
 cgccaagtgc taaccaaacc tcagcaacaa ataaagcagg caataatcaa tgcagcagcc  
 1380  
 tcgcaacccc ccaaaaagggt gtctcgagtc cagggtggtg cgtccttgca gagttctgtg  
 1440  
 gtggaagctt tcaacaagggt gctgagcagt gtcaatccag tcctgttta catcccaaac  
 1500  
 ctcagtcttc ccgccaatgc agggatcacg ttaccgacgc gt  
 1542

<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

Xaa	Tyr	Ser	Lys	Asp	Gly	Ala	Lys	Ser	Leu	Lys	Gly	Asp	Val	Pro	Ala
1			5						10					15	
Ser	Glu	Val	Thr	Leu	Lys	Asp	Ser	Thr	Phe	Ser	Gln	Phe	Ser	Pro	Ile
			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
		35				40						45			
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
	50					55					60				
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65					70					75				80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85					90					95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100					105					110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115					120					125			
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
	130					135					140				
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145					150					155				160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
			165					170					175		
Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

				180					185					190			
Asn	Ser	Arg	Glu	Ser	Ser	Pro	Leu	Pro	Lys	Glu	Val	Asn	Asp	Ser	Pro		
		195					200					205					
Arg	Ala	Ala	Asp	Lys	Ser	Pro	Glu	Ser	Gln	Asn	Leu	Ile	Asp	Gly	Thr		
	210					215					220						
Lys	Lys	Pro	Ser	Leu	Lys	Gln	Pro	Asp	Ser	Pro	Arg	Ser	Ile	Ser	Ser		
225					230					235					240		
Glu	Asn	Ser	Ser	Lys	Gly	Ser	Pro	Ser	Ser	Pro	Ala	Gly	Ser	Thr	Pro		
				245					250					255			
Ala	Ile	Pro	Lys	Val	Arg	Ile	Lys	Thr	Ile	Lys	Thr	Ser	Ser	Gly	Glu		
			260					265					270				
Ile	Lys	Arg	Thr	Val	Thr	Arg	Val	Leu	Pro	Glu	Val	Asp	Leu	Asp	Ser		
		275				280						285					
Gly	Lys	Lys	Pro	Ser	Glu	Gln	Thr	Ala	Ser	Val	Met	Ala	Ser	Val	Thr		
	290					295				300							
Ser	Leu	Leu	Ser	Ser	Pro	Ala	Ser	Ala	Ala	Val	Leu	Ser	Ser	Pro	Pro		
305					310					315					320		
Arg	Ala	Pro	Leu	Gln	Ser	Ala	Val	Val	Thr	Asn	Ala	Val	Ser	Pro	Ala		
				325					330					335			
Glu	Leu	Thr	Pro	Lys	Gln	Val	Thr	Ile	Lys	Pro	Val	Ala	Thr	Ala	Phe		
			340					345					350				
Leu	Pro	Val	Ser	Ala	Val	Lys	Thr	Ala	Gly	Ser	Gln	Val	Ile	Asn	Leu		
		355					360					365					
Lys	Leu	Ala	Asn	Asn	Thr	Thr	Val	Lys	Ala	Thr	Val	Ile	Ser	Ala	Ala		
	370					375					380						
Ser	Val	Gln	Ser	Ala	Ser	Ser	Ala	Ile	Ile	Lys	Ala	Ala	Asn	Ala	Ile		
385					390					395					400		
Gln	Gln	Gln	Thr	Val	Val	Val	Pro	Ala	Ser	Ser	Leu	Ala	Asn	Ala	Lys		
			405						410					415			
Leu	Val	Pro	Lys	Thr	Val	His	Leu	Ala	Asn	Leu	Asn	Leu	Leu	Pro	Gln		
			420					425					430				
Gly	Ala	Gln	Ala	Thr	Ser	Glu	Leu	Arg	Gln	Val	Leu	Thr	Lys	Pro	Gln		
		435					440					445					
Gln	Gln	Ile	Lys	Gln	Ala	Ile	Ile	Asn	Ala	Ala	Ala	Ser	Gln	Pro	Pro		
	450					455					460						
Lys	Lys	Val	Ser	Arg	Val	Gln	Val	Val	Ser	Ser	Leu	Gln	Ser	Ser	Val		
465					470					475					480		
Val	Glu	Ala	Phe	Asn	Lys	Val	Leu	Ser	Ser	Val	Asn	Pro	Val	Pro	Val		
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Tyr	Ile	Pro	Asn														

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<210> 4325
<211> 1405
<212> DNA
<213> Homo sapiens
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120
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gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc  
 180  
 agcctggccc ctcgagggtcc ctgcttggtcc ctcccacagg cagcctggcc tgctgcagcc  
 240  
 cgccagctcc tccttggcct ttgaggacag actcgatgtc ctagatgtcc acgagggtggg  
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 360  
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 420  
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 480  
 gcagcctgtg gccagagcct agaggagaga tcaaagaccc tggccgaagt gaagcccatt  
 540  
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 600  
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 660  
 gccgtggaca gcttcctcca gcagcagtat gtgctggggg ccgggggtgg tcctggcccg  
 720  
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 780  
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 840  
 gccaaaggagg agcttctgca gaccctgcgg acccacctga tcctccacat ggcccagacc  
 900  
 cagggtact ccaagggtcat gactggggac agctgcacac gcttggctat caagctcatg  
 960  
 accaacctgg cgctgggtcg aggggccttc ctggcctggg atacgggctt ctcggtatgag  
 1020  
 cggcacgggg acgtgggtgg ggtgcggccc atgcgggacc acaccctgaa ggaggtcgct  
 1080  
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 1140  
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 1200  
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 1260  
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 1320  
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 1380  
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 1405

&lt;210&gt; 4326

&lt;211&gt; 336

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4326

Met Phe Phe Leu Pro Gln Val Leu Leu Ala Trp Ser Gly Gly Pro Ser  
 1 5 10 15  
 Ser Ser Ser Met Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser

20							25					30					
Ala	Lys	Arg	Leu	Arg	Phe	Val	Ala	Gly	Val	Ile	Phe	Val	Asp	Glu	Gly		
35							40					45					
Ala	Ala	Cys	Gly	Gln	Ser	Leu	Glu	Glu	Arg	Ser	Lys	Thr	Leu	Ala	Glu		
50							55					60					
Val	Lys	Pro	Ile	Leu	Gln	Ala	Thr	Gly	Phe	Pro	Trp	His	Val	Val	Ala		
65	70							75					80				
Leu	Glu	Glu	Val	Phe	Ser	Leu	Pro	Pro	Ser	Val	Leu	Trp	Cys	Ser	Ala		
85							90					95					
Gln	Glu	Leu	Val	Gly	Ser	Glu	Gly	Ala	Tyr	Lys	Ala	Ala	Val	Asp	Ser		
100							105					110					
Phe	Leu	Gln	Gln	Gln	Tyr	Val	Leu	Gly	Ala	Gly	Gly	Gly	Pro	Gly	Pro		
115							120					125					
Thr	Gln	Gly	Glu	Glu	Gln	Pro	Pro	Gln	Pro	Pro	Leu	Asp	Pro	Gln	Asn		
130							135					140					
Leu	Ala	Arg	Pro	Pro	Ala	Pro	Ala	Gln	Thr	Glu	Ala	Leu	Ser	Gln	Leu		
145	150							155					160				
Phe	Cys	Ser	Val	Arg	Thr	Leu	Thr	Ala	Lys	Glu	Glu	Leu	Leu	Gln	Thr		
165							170					175					
Leu	Arg	Thr	His	Leu	Ile	Leu	His	Met	Ala	Arg	Ala	His	Gly	Tyr	Ser		
180							185					190					
Lys	Val	Met	Thr	Gly	Asp	Ser	Cys	Thr	Arg	Leu	Ala	Ile	Lys	Leu	Met		
195							200					205					
Thr	Asn	Leu	Ala	Leu	Gly	Arg	Gly	Ala	Phe	Leu	Ala	Trp	Asp	Thr	Gly		
210							215					220					
Phe	Ser	Asp	Glu	Arg	His	Gly	Asp	Val	Val	Val	Val	Arg	Pro	Met	Arg		
225	230							235					240				
Asp	His	Thr	Leu	Lys	Glu	Val	Ala	Phe	Tyr	Asn	Arg	Leu	Phe	Ser	Val		
245							250					255					
Pro	Ser	Val	Phe	Thr	Pro	Ala	Val	Asp	Thr	Lys	Ala	Pro	Glu	Lys	Ala		
260							265					270					
Ser	Ile	His	Arg	Leu	Met	Glu	Ala	Phe	Ile	Leu	Arg	Leu	Gln	Thr	Gln		
275							280					285					
Phe	Pro	Ser	Thr	Val	Ser	Thr	Val	Tyr	Arg	Cys	Val	Trp	Val	Cys	Ala		
290							295					300					
Gly	Gly	Ala	Arg	Val	Cys	Ala	Val	Cys	Gly	Cys	Val	Arg	Val	Val	Ser		
305	310							315					320				
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<210> 4327
<211> 551
<212> DNA
<213> Homo sapiens
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120
tgtgcaggtg gggaaattta gaccctgaaa aagggatgcc ctgagatcac catgagattg
180
aggggcaagc agggctcacc ctgactggct cacttcccag gcacccccat gagcccaggc
240
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accgcctgcc accctcactc tccaggaaga gccaccgcgt ggtggccggg atcgtgtggt  
 300  
 ggccagggcg tctgaccttg gctctcacc ggagggcatc caggtgctga ggatggctaa  
 360  
 cgctaaggcc acacagccag ggagaggagg tggctcgtga caccacgatg ggacacaccc  
 420  
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<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

Met	Pro	Ser	Arg	Val	Gln	Ala	Pro	Ser	Trp	Gln	Ala	Arg	Ala	Val	Gly
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Val	Thr	Leu	Leu	Ser	Gln	Arg	Trp	Val	Cys	Pro	Ile	Val	Val	Ser	Arg
			20					25					30		
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
			35				40					45			
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
	50					55					60				
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65					70				75					80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
			85					90					95		
Arg	Val	Ser	Pro	Ala	Cys	Pro	Ser	Ile	Ser	Trp					
			100					105							

<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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 180  
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 240  
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 300  
 agatctagcc agcgagatca gatactctat ctctttggga gaactggccg agaaaaagag  
 360  
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 420

ggtgtctctg gaggtaaacc agggcttttg cctgcacaca gcagacacaa cagtccgtcc  
480  
gggcacctga cccacagccg cagcagcagc aaaggcagtg tggaggagat catgtcacag  
540  
ccaaagcaga aggagctggc aggcagcgtg cggcagaaga tgcttctcga ctacagcgtg  
600  
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660  
gcggagagca gccccacagc tgggaagaag ttgccagagg ttccaccctc tgaggaggaa  
720  
gaacaggaag cctgggtgaa tgccttgctt ggaagaatat tttgggactt cttaggagag  
780  
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840  
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900  
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960  
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1020  
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1080  
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1140  
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1320  
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1560  
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1740  
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1860  
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1920  
catggctttt aaaagtctac ccatgtttgt ggcagcaaat gagcacagta agagcaaagc  
1980  
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2040

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 aatgtgtctg gaggggtggg agaggaattc tgtgagcctt ttcatttcgg tgacagaaga  
 2160  
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 2580  
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 2640  
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 3192

&lt;210&gt; 4330

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4330

Met	Ser	Gln	Pro	Lys	Gln	Lys	Glu	Leu	Ala	Gly	Ser	Val	Arg	Gln	Lys
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Met	Leu	Leu	Asp	Tyr	Ser	Val	Tyr	Met	Gly	Arg	Cys	Val	Pro	Gln	Glu
			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
		35					40				45				
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

50 55 60  
 Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe  
 65 70 75 80  
 Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met  
 85 90 95  
 Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu  
 100 105 110  
 Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe  
 115 120 125  
 Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser  
 130 135 140  
 Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro  
 145 150 155 160  
 Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile  
 165 170 175  
 Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp  
 180 185 190  
 Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu  
 195 200 205  
 Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly  
 210 215 220  
 Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys  
 225 230 235 240  
 Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa  
 245 250 255  
 Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln  
 260 265 270  
 Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp  
 275 280 285  
 Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala  
 290 295 300  
 Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp  
 305 310 315 320  
 Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met  
 325 330 335  
 Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp  
 340 345 350  
 Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala  
 355 360 365  
 Asp Arg Pro  
 370

&lt;210&gt; 4331

&lt;211&gt; 1355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4331

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ttaaaagatg gcagtttatt ttggcagtca ccaaagaggc caccctctcc aataaaattt

120

gatttaaagt agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca

180

gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt  
 240  
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 300  
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 360  
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 420  
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 480  
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 540  
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 600  
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 660  
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 720  
 aatggaatat catttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc  
 780  
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 840  
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 900  
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 960  
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 1020  
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 1140  
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<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20					25					30		
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
			35				40					45			
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

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      50      55      60
Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
65      70      75      80
Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
      85      90      95
Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
      100      105      110
Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
      115      120      125
Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
      130      135      140
Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
145      150      155      160
Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
      165      170      175
Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
      180      185      190
Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
      195      200      205
Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
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Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
225      230      235      240
Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
      245      250      255
Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
      260      265      270
Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
      275      280      285
Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
      290      295      300
Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
305      310      315      320
Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
      325      330      335
Arg Tyr Tyr Phe Ser His Asp Thr Asp
      340      345

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&lt;210&gt; 4333

&lt;211&gt; 1278

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4333

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&lt;210&gt; 4334

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4334

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Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
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Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
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Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
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Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
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Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

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Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe	
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His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg	
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Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg	
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<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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240	gaggtcgtgg	ccaagtacac	aagggaccac	gtagggagtt	tcatgactga	gtctcagaat
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 <213> Homo sapiens

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 35 40 45  
 Leu Val Glu Val Val Ala Lys Tyr Thr Arg Asp His Val Gly Ser Phe  
 50 55 60  
 Met Thr Glu Ser Gln Asn Leu Ser Thr His Leu Leu Ile Leu Tyr Gly  
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 Val Gln Gly Leu Leu Thr Phe Gly Tyr Leu Val Leu Leu Ser His Val  
 85 90 95  
 Gly Glu Arg Met Ala Val Asp Met Arg Arg Ala Leu Phe Ser Ser Leu  
 100 105 110  
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 115 120 125  
 Val Ser Arg Leu Thr Thr Asp Val Gln Glu Phe Lys Ser Ser Phe Lys  
 130 135 140  
 Leu Val Ile Ser Gln Gly Leu Arg Ser Cys Thr Gln Val Ala Gly Cys  
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 Leu Val Ser Leu Ser Met Leu Ser Thr Arg Leu Thr Leu Leu Met  
 165 170 175  
 Val Ala Thr Pro Ala Leu Met Gly Val Gly Thr Leu Met Gly Ser Gly  
 180 185 190  
 Leu Arg Lys Leu Ser Arg Gln Cys Gln Glu Gln Ile Ala Arg Ala Met  
 195 200 205  
 Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg Ala Phe  
 210 215 220  
 Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu Glu Ala  
 225 230 235 240  
 Cys Arg Cys Arg Ala Glu Glu Leu Gly Arg Gly Ile Ala Leu Phe Gln  
 245 250 255  
 Gly Leu Ser Asn Ile Ala Phe Asn Cys Met Val Leu Gly Thr Leu Phe  
 260 265 270  
 Ile Gly Gly Ser Leu Val Ala Gly Gln Gln Leu Thr Gly Gly Asp Leu  
 275 280 285  
 Met Ser Phe Leu Val Ala Ser Gln Thr Val Gln Ser Phe Leu Arg Val  
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 305 310 315 320  
 Trp Lys Asp His Pro

325

&lt;210&gt; 4337

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4337

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&lt;210&gt; 4338

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4338

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			20					25					30		
Thr	Trp	Phe	Pro	Ser	Ser	Gly	Ala	His	Gly	Gly	Glu	Val	Glu	Gly	Gly
		35				40					45				
Arg	Arg	Glu	Gly	Ala	Thr	Cys	Cys	Ser	Val	Glu	Lys	Gln	Gln	Ser	Pro
	50					55				60					
Leu	Gln	Pro	Ala	Gln	Leu	Ala	Phe	Leu	Thr	Leu	Ser	Leu	Pro	Gly	Leu
65					70				75					80	
Cys	Gly	Arg	Glu	Gly	Gln	Ala	Arg	Trp	Pro	Ala	Arg	Asp	Val	Val	Phe
				85					90					95	
Ser	Phe	Val	Leu	Cys	Thr	Met	Pro	Gln	Lys	Asn	Ile	Leu	Leu	Ile	Cys
			100					105						110	
Asn	Gln	Asp	Asn	Ile	Ile										
			115												

&lt;210&gt; 4339

&lt;211&gt; 5269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4339

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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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		20						25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
		35					40					45			
Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
	50					55				60					
Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
65					70					75					80
Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
			85						90					95	
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
			100					105					110		
Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
		115					120					125			
Leu	Gln	Asn	Ile	Leu	Gly	Val	Ile	Leu	Phe	Leu	Arg	Leu	Thr	Trp	Ile
	130					135					140				
Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
145					150					155				160	
Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
			165					170					175		
Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
		180					185						190		
Leu	Gly	Pro	Glu	Phe	Gly	Gly	Ala	Val	Gly	Leu	Cys	Phe	Tyr	Leu	Gly
		195					200					205			
Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
	210					215					220				
Leu	Thr	Tyr	Ile	Ser	Pro	Gly	Ala	Ala	Ile	Phe	Gln	Ala	Glu	Ala	Ala
225					230					235				240	
Gly	Gly	Glu	Ala	Ala	Ala	Met	Leu	His	Asn	Met	Arg	Val	Tyr	Gly	Thr
			245					250					255		
Cys	Thr	Leu	Val	Leu	Met	Ala	Leu	Val	Val	Phe	Val	Gly	Val	Lys	Tyr



[illegible]

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Ala Val Lys His Pro Arg Leu Leu Ser Phe Thr Ser Gln Leu Lys Ala		
705	710	715
Gly Lys Gly Leu Thr Ile Val Gly Ser Val Leu Glu Gly Thr Tyr Leu		
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Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu		
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Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser		
	755	760
Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly		
	770	775
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys		
785	790	795
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg		
	805	810
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp		
	820	825
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val		
	835	840
Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu		
	850	855
Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr		
865	870	875
Val Ala Gln Val Asp Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln		
	885	890
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu		
	900	905
Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met		
	915	920
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn		
	930	935
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser		
945	950	955
His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys		
	965	970
Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg		
	980	985
Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys		
	995	1000
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr		
	1010	1015
Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln		
1025	1030	1035
Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp		
	1045	1050
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg		
	1060	1065
Val Leu Leu Val Arg Gly Gly Gly Arg Glu Val Ile Thr Ile Tyr Ser		
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		1085

&lt;210&gt; 4341

&lt;211&gt; 693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 120  
 gacctgaggg agccatatgc atcaagtga tgtttctcca taacagaata tttataagag  
 180  
 aacatgtata gtgccctctt ttgagtga cgcacagaca ccaagccctc cttttcacca  
 240  
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 360  
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 420  
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 480  
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<210> 4342  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

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 Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr  
 35 40 45  
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala  
 50 55 60  
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys  
 65 70 75 80  
 Lys Phe Phe Lys Ala Tyr Asn Leu Lys Ser Thr Ser Thr Tyr Ser Arg  
 85 90 95  
 Asn Ile Val Ala Phe Ser Ile  
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 <211> 499  
 <212> DNA  
 <213> Homo sapiens

<400> 4343

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 240  
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 <211> 118  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Gly Gly Glu Arg Arg Thr Asp Phe Arg Gly Gly Pro Gly His Ala Ala  
 50 55 60  
 Glu Thr Thr Arg Leu Pro Gly Gly Gly Gln Asp Arg Pro Cys Pro Asp  
 65 70 75 80  
 Lys Met Glu Phe Pro Val Trp Leu Gln Leu Ala Ala Arg Ser Gln Ser  
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 100 105 110  
 Val Val Gln Ile Leu Ile  
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 <211> 349  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180

ctgaggagtg ggctgncgcg cacggccatc tccgagctcc acgggaacat gtacattgaa  
 240  
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 <211> 116  
 <212> PRT  
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 Gln Lys Gly Arg Ser Val Ser Ala Ala Asp Xaa Glu Arg Ala Glu Pro  
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 Thr Leu Thr His Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val  
 35 40 45  
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly  
 50 55 60  
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu  
 65 70 75 80  
 Gly Val Arg Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln  
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 Thr Pro Asp Arg Pro Asp Leu Pro Gln Val Trp Asp Pro Ala Ala Gly  
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 His His Cys Ala  
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 <211> 353  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 4348

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 20 25 30  
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Arg Val Ala Arg Ser Ser Leu  
 35 40 45  
 Pro Ser Pro Ser Ala Arg Pro Gly Arg Gly Gly Arg Pro Gly Pro Gly  
 50 55 60  
 Gly Ser Ala Gly Cys Pro Gly Leu  
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&lt;210&gt; 4349

&lt;211&gt; 2040

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4349

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 1920  
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<210> 4350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

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Ile	Arg	Thr	Gln	His	Gly	Pro	His	Gly	Gly	Gln	Val	Ala	Gly	Gly	Pro
			20					25					30		
Phe	Pro	Pro	Leu	Ala	His	Ala	Pro	Leu	Thr	Gly	Thr	Arg	Pro	Ser	Cys
		35					40					45			
Gly	Pro	Arg	Leu	Trp	His	Gly	Thr	Cys	Pro	Ser	Ala	Gln	His	Gly	Pro
	50					55					60				
Gly	Ala	Thr	Leu	Leu	Ala	Glu	Gly	Gln	Gly	Pro	Leu	Cys	Arg	Gln	Trp
65					70					75				80	
Gly	Gly	Gly	Pro	Arg	Phe	Pro	Asp	Arg	Gly	Arg	Gln	Gly	Thr	Gly	Glu
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Pro															

<210> 4351  
<211> 4703  
<212> DNA  
<213> Homo sapiens

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180  
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360  
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720  
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1380



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 <213> Homo sapiens

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2340

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 <212> PRT  
 <213> Homo sapiens

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 Pro Ala Glu Val Asp Glu Glu Gly Lys Asp Ile Asn Pro His Ile Pro  
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 Gln Tyr Ile Ser Ser Val Pro Trp Tyr Ile Asp Pro Ser Lys Arg Pro  
 65 70 75 80  
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 Ser Ser Gly Glu Trp Tyr Lys Arg Gly Val Lys Glu Asn Ser Ile Ile  
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 Thr Lys Tyr Arg Lys Gly Ala Cys Glu Asn Cys Gly Ala Met Thr His  
 115 120 125  
 Lys Lys Lys Asp Cys Phe Glu Arg Pro Arg Arg Val Gly Ala Lys Phe  
 130 135 140  
 Thr Gly Thr Asn Ile Ala Pro Asp Glu His Val Gln Pro Gln Leu Met  
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 Phe Asp Tyr Asp Gly Lys Arg Asp Arg Trp Asn Gly Tyr Asn Pro Glu  
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 Glu His Met Lys Ile Val Glu Glu Tyr Ala Lys Val Asp Leu Ala Lys  
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 Arg Thr Leu Lys Ala Gln Lys Leu Gln Glu Glu Leu Ala Ser Gly Lys  
 195 200 205  
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 Pro Asn Ser Gln Thr Glu Lys Asp His Asn Ser Glu Asp Glu Asp Glu  
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 Gly Ser Tyr Trp Lys Glu Gly Arg Trp Gly Tyr Lys Cys Cys His Ser  
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 Phe Phe Lys Tyr Ser Tyr Cys Thr Gly Glu Ala Gly Lys Glu Ile Val  
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 485 490 495  
 Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys His Arg Lys Ser Ser  
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&lt;210&gt; 4355

&lt;211&gt; 1741

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4355

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&lt;210&gt; 4356

&lt;211&gt; 509

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4356

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Arg Val Thr Pro Ala Val Val Ala Tyr Ser Glu Asn Glu Glu Ile Val			
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Gly Leu Ala Ala Lys Gln Ser Arg Ile Arg Asn Ile Ser Asn Thr Val			
50	55	60	
Met Lys Val Lys Gln Ile Leu Gly Arg Ser Ser Ser Asp Pro Gln Ala			
65	70	75	80
Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
85	90	95	
Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
100	105	110	
Pro Glu Asp Val Ala Arg Leu Ile Phe Ser Lys Met Lys Glu Thr Ala			
115	120	125	
His Ser Val Leu Gly Ser Asp Ala Asn Asp Val Val Ile Thr Val Pro			
130	135	140	
Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg			
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Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala			
165	170	175	
Leu Leu Ala Tyr Gly Ile Gly Gln Asp Ser Pro Thr Gly Lys Ser Asn			
180	185	190	
Ile Leu Val Phe Lys Leu Gly Gly Thr Ser Leu Ser Leu Ser Val Met			
195	200	205	
Glu Val Asn Ser Gly Ile Tyr Arg Val Leu Ser Thr Asn Thr Asp Asp			
210	215	220	
Asn Ile Gly Gly Ala His Phe Thr Glu Thr Leu Ala Gln Tyr Leu Ala			
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Ser Glu Phe Gln Arg Ser Phe Lys His Asp Val Arg Gly Asn Ala Arg			
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Ala Met Met Lys Leu Thr Asn Ser Ala Glu Val Ala Lys His Ser Leu			
260	265	270	
Ser Thr Leu Gly Ser Ala Asn Cys Phe Leu Asp Ser Leu Tyr Glu Gly			
275	280	285	
Gln Asp Phe Asp Cys Asn Val Ser Arg Ala Arg Phe Glu Leu Leu Cys			
290	295	300	
Ser Pro Leu Phe Asn Lys Cys Ile Glu Ala Ile Arg Gly Leu Leu Asp			
305	310	315	320
Gln Asn Gly Phe Thr Ala Asp Asp Ile Asn Lys Val Val Leu Cys Gly			
325	330	335	
Gly Ser Ser Arg Ile Pro Lys Leu Gln Gln Leu Ile Lys Asp Leu Phe			
340	345	350	
Pro Ala Val Glu Leu Leu Asn Ser Ile Pro Pro Asp Glu Val Ile Pro			
355	360	365	
Ile Gly Ala Ala Ile Glu Ala Gly Ile Leu Ile Gly Lys Glu Asn Leu			
370	375	380	
Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu			
385	390	395	400
Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe			
405	410	415	
Pro Ser Gly Thr Pro Leu Pro Ala Arg Arg Gln His Thr Leu Gln Ala			
420	425	430	
Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly			



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Asp Leu Asp Lys Lys Glu Asn Gly Leu Arg Asp Ile Leu Ala Val Leu
465              470              475              480
Thr Met Lys Arg Asp Gly Ser Leu His Val Thr Cys Thr Asp Gln Glu
          485              490              495
Thr Gly Lys Cys Glu Ala Ile Ser Ile Glu Ile Ala Ser
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421

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 <211> 115  
 <212> PRT  
 <213> Homo sapiens

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Gln Lys Pro Trp Pro Ser Pro Ala Val Phe Phe Arg Arg Asn Val Arg
35          40          45
Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
50          55          60
Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Gly Ala Arg Tyr
65          70          75          80
Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
85          90          95
Gly Met Gly Arg Phe Cys Arg Ser Leu Lys Val Gly Leu Gln Ile Ser
100         105         110
Leu Asp Tyr

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115

&lt;210&gt; 4359

&lt;211&gt; 3661

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4359

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 3480  
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 3540  
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 3660  
 a  
 3661

&lt;210&gt; 4360

&lt;211&gt; 670

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4360

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Ser	Asn	Leu	Pro	Thr	Pro	Asp	Val	Thr	Thr	Gly	Thr	Arg	Met	Glu	Thr
			20					25					30		
Thr	Phe	Gly	Pro	Ala	Phe	Ser	Ala	Val	Thr	Thr	Ile	Thr	Lys	Ala	Asp
		35					40					45			
Gly	Thr	Ser	Thr	Tyr	Lys	Gln	His	Cys	Arg	Thr	Pro	Ser	Ser	Ser	Ser
		50				55					60				
Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
65					70					75				80	
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
				85					90					95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
			100					105					110		
Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
		115				120						125			
Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
	130				135						140				
Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
145					150					155				160	
Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
				165					170					175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

			180						185						190					
Arg	Val	Ala	Gly	Ser	Gly	Lys	Pro	Pro	Ile	Phe	Glu	Val	Asp	Pro	Arg					
		195					200					205								
Gly	Cys	Pro	Phe	Thr	Ile	Lys	Leu	Ser	Ala	Arg	Lys	Asp	His	Glu	Gly					
	210					215					220									
Ser	Cys	Asp	Tyr	Arg	Pro	Val	Arg	Cys	Pro	Asn	Asn	Pro	Ser	Cys	Pro					
225					230					235					240					
Pro	Leu	Leu	Arg	Met	Asn	Leu	Glu	Ala	His	Leu	Lys	Glu	Cys	Glu	His					
				245					250					255						
Ile	Lys	Cys	Pro	His	Ser	Lys	Tyr	Gly	Cys	Thr	Phe	Ile	Gly	Asn	Gln					
			260					265					270							
Asp	Thr	Tyr	Glu	Thr	His	Leu	Glu	Thr	Cys	Arg	Phe	Glu	Gly	Leu	Lys					
		275					280					285								
Glu	Phe	Leu	Gln	Gln	Thr	Asp	Asp	Arg	Phe	His	Glu	Met	His	Val	Ala					
	290					295					300									
Leu	Ala	Gln	Lys	Asp	Gln	Glu	Ile	Ala	Phe	Leu	Arg	Ser	Met	Leu	Gly					
305					310					315					320					
Lys	Leu	Ser	Glu	Lys	Ile	Asp	Gln	Leu	Glu	Lys	Ser	Leu	Glu	Leu	Lys					
				325					330					335						
Phe	Asp	Val	Leu	Asp	Glu	Asn	Gln	Ser	Lys	Leu	Ser	Glu	Asp	Leu	Met					
		340						345					350							
Glu	Phe	Arg	Arg	Asp	Ala	Ser	Met	Leu	Asn	Asp	Glu	Leu	Ser	His	Ile					
	355						360					365								
Asn	Ala	Arg	Leu	Asn	Met	Gly	Ile	Leu	Gly	Ser	Tyr	Asp	Pro	Gln	Gln					
	370					375					380									
Ile	Phe	Lys	Cys	Lys	Gly	Thr	Phe	Val	Gly	His	Gln	Gly	Pro	Val	Trp					
385					390					395					400					
Cys	Leu	Cys	Val	Tyr	Ser	Met	Gly	Asp	Leu	Leu	Phe	Ser	Gly	Ser	Ser					
				405				410					415							
Asp	Lys	Thr	Ile	Lys	Val	Trp	Asp	Thr	Cys	Thr	Thr	Tyr	Lys	Cys	Gln					
		420						425					430							
Lys	Thr	Leu	Glu	Gly	His	Asp	Gly	Ile	Val	Leu	Ala	Leu	Cys	Ile	Gln					
	435						440					445								
Gly	Cys	Lys	Leu	Tyr	Ser	Gly	Ser	Ala	Asp	Cys	Thr	Ile	Ile	Val	Trp					
	450					455					460									
Asp	Ile	Gln	Asn	Leu	Gln	Lys	Val	Asn	Thr	Ile	Arg	Ala	His	Asp	Asn					
465					470					475					480					
Pro	Val	Cys	Thr	Leu	Val	Ser	Ser	His	Asn	Val	Leu	Phe	Ser	Gly	Ser					
			485					490					495							
Leu	Lys	Ala	Ile	Lys	Val	Trp	Asp	Ile	Val	Gly	Thr	Glu	Leu	Lys	Leu					
		500						505					510							
Lys	Lys	Glu	Leu	Thr	Gly	Leu	Asn	His	Trp	Val	Arg	Ala	Leu	Val	Ala					
	515						520					525								

610	615	620
Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu		
625	630	635
Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu		640
	645	650
Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys		655
	660	665
		670

<210> 4361  
 <211> 574  
 <212> DNA  
 <213> Homo sapiens

<400> 4361  
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 120  
 atgagctgga gggcccacta cggggaggtc tactctgtgg agttcagcta tgatgagaac  
 180  
 accgtgtaca gcatcggcga ggacgggaag gtaggcggct ccaggattca gataagagag  
 240  
 caccgggatg acatgtgggc cggctgcagg ttgtggccat acctgttact agctctgcaa  
 300  
 cctggggcct ctttttgcag ctttgttata tgtagaatag ggataaacta gtaattcgct  
 360  
 ttacaatcct tgcgaggttt tagtgaattc agtgggagtt ggctatcctt atgaaaggaa  
 420  
 gtacaaaaaa ttactcatct taccatagat gtatctgtgg ggtctggatt tagggctgag  
 480  
 tttgctttgc tgggcttggt agtgagtggg cccaggacca ctcatggatg tgtagtttgc  
 540  
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 574

<210> 4362  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 4362  
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 1 5 10 15  
 Gly Asn Leu Leu Val Thr Gly Ala Ala Asp Gly Val Ile Arg Leu Phe  
 20 25 30  
 Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly  
 35 40 45  
 Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser  
 50 55 60  
 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu  
 65 70 75 80  
 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu  
 85 90 95  
 Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

Ile Gly Ile Asn  
115

105

110

<210> 4363  
<211> 1222  
<212> DNA  
<213> Homo sapiens

<400> 4363  
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 tggtctttaat ttgaaaaatc tgattggggt ctcttcccgt atcagagaag gaacagccca  
 120  
 agctatgacc ccagggccag ggaattcagt cccaccaga cctgtcatt ccatcactag  
 180  
 ggggtaattc caggctcccc ctgccagccc tgagacagga ggacggatgt gaagttgccc  
 240  
 aggactagat tctgtctctc caaagtggcc caagccctgt tctctgtact aggyaagcca  
 300  
 gctgtgtctt ttcgaggaca gttgtccag ccagcaggct cagttcagat accagacaac  
 360  
 cattccagca cgagggctca gcgccttggc cccggcggtc gctccagtgc ctgtgtgccc  
 420  
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 480  
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 660  
 cggcctggtg gcccctcgtc tgccaagggt tggggagcct gactcaggcc ctcaatgtgg  
 720  
 ctgaggtcct ccaggaggct ggccatggag gctgaaaggg cagcgtccga gcttgccagt  
 780  
 aagttgtcag ccacactggg ggctgcagggt gggctaggca caggtggcag ggcagccgcg  
 840  
 ggtgccatgg acgcnntgg atgcgccgca gagtgttcac gaccagcacc aggtgccgca  
 900  
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 960  
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 1020  
 caggagtcga ctgccagagg ttccttctcc tcctcctcct cccgtttccg cttcagacct  
 1080  
 ttgctcagca tcttgctcac tagcggccaa tcagaacgaa gaggtagcca cccacaacca  
 1140  
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 1200  
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 1222

<210> 4364

<211> 75  
 <212> PRT  
 <213> Homo sapiens

<400> 4364  
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 Lys Val Ala Gln Ala Leu Phe Ser Val Leu Gly Lys Pro Ala Val Ser  
 20 25 30  
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp  
 35 40 45  
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser  
 50 55 60  
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg  
 65 70 75

<210> 4365  
 <211> 469  
 <212> DNA  
 <213> Homo sapiens

<400> 4365  
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 120  
 gtcaccgacg acatcaagcc ggggtgtggcg attggcggtg cgtcggtccc gacctactac  
 180  
 cgcagcatgt acccgaaaga agtgatcatg accggcgaca tgatgctgga aaaggtctat  
 240  
 cgcgagggcg acaagctggg ggcgggtgctg gagaacgaat acaccggcgc caaggaagag  
 300  
 cgggtgggtcg accaggtggg ggtggagaac ggtgtgcgtc cggatgagga aatctactac  
 360  
 gggctcaagg aaggttcgcg caacaagggc cagatcgatg tcgaagccct gttcgcgatc  
 420  
 aagccgcagc ctctgctgaa tactcttaat gaagaggcag cgggtgacg  
 469

<210> 4366  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 4366  
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 Asp Thr Ile Cys Glu Phe Thr Gly Met Ser Val Ala Asp Phe Leu Ala  
 20 25 30  
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly  
 35 40 45  
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr  
 50 55 60  
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr



65					70					75					80
Arg	Glu	Gly	Asp	Lys	Leu	Val	Ala	Val	Leu	Glu	Asn	Glu	Tyr	Thr	Gly
				85					90					95	
Ala	Lys	Glu	Glu	Arg	Val	Val	Asp	Gln	Val	Val	Val	Glu	Asn	Gly	Val
		100						105					110		
Arg	Pro	Asp	Glu	Glu	Ile	Tyr	Tyr	Gly	Leu	Lys	Glu	Gly	Ser	Arg	Asn
		115					120					125			
Lys	Gly	Gln	Ile	Asp	Val	Glu	Ala	Leu	Phe	Ala	Ile	Lys	Pro	Gln	Pro
	130					135					140				
Ser	Leu	Asn	Thr	Leu	Asn	Glu	Glu	Ala	Ala	Gly	Asp				
145					150					155					

&lt;210&gt; 4367

&lt;211&gt; 852

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4367

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120
atctacgaga ctccccgggg cccagacca gccctcctgg aggccacagg gggagcagct
180
ggagctggtg gggctggccg cggggaggat gaagagaacc gagagcaccg tgtccgcagg
240
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300
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480
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cccaccctg gccctgcgtc ctccctctc cagctgggta agagggattt agaattcctc
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660
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720
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aactaaaaaa aa
852

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&lt;210&gt; 4368

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 4368  
 Xaa Leu Gly Arg Gly Met Ala Leu Arg Asp Cys Thr Arg Arg Lys Glu  
 1 5 10 15  
 Leu Gly Pro Ala Gly Leu Leu Gln Val Glu Phe Pro Glu Ala Arg Ile  
 20 25 30  
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro  
 35 40 45  
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly  
 50 55 60  
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg  
 65 70 75 80  
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln  
 85 90 95  
 Gln Ile Val Phe Lys Asp  
 100

<210> 4369  
 <211> 1264  
 <212> DNA  
 <213> Homo sapiens

<400> 4369  
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 120  
 actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaat agaccagttg  
 180  
 gagaacaata aaaccttggg ctttatacctg tctactctct tagccattgg gaactttcta  
 240  
 aatggaacta atgccaaagc gtttgagtta agctacctcg agaaggttcc agaagtcaaa  
 300  
 gacacagtgc acaagcagtc gcttctccac catgtgtgca ccatggtggt agaaaacttc  
 360  
 ccagacagct ccgatctgta ctcgagatc ggggccatca ccaggtcagc caaggttgac  
 420  
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 480  
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 600  
 aacagattcc actccttttt actctttatg ggccatccac cttatgcaat tcgggaagtg  
 660  
 aacataaaca aattctgcag gattattagt gaatttgcac tagagtatcg cacaaccagg  
 720  
 gaaagggttt tgcagcagaa acagaaacgg gcccaaccaca gagagagaaa taagaccaga  
 780  
 gggaagatga tcaccgatcc tggcaagttc tccggcagtt ctccggcgcc cccaagccag  
 840  
 ccgcagggtc tgagctatgc ggaggacgag gctgagcacg agaacatgaa ggctgtgctg  
 900  
 aaaacctcgt cccctccag gagtccctg cacatacctt ctccatcgtg tcagctgtgt  
 960

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 1020  
 aggaacagcc cctttaagga gcaaatacact tctgtcacag ttattatggg aatatgaggg  
 1080  
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccac  
 1140  
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 1260  
 tgcc  
 1264

<210> 4370  
 <211> 322  
 <212> PRT  
 <213> Homo sapiens

<400> 4370  
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 20 25 30  
 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu  
 35 40 45  
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys  
 50 55 60  
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu  
 65 70 75 80  
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val  
 85 90 95  
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val  
 100 105 110  
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser  
 115 120 125  
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu  
 130 135 140  
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp  
 145 150 155 160  
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln  
 165 170 175  
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu  
 180 185 190  
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu  
 195 200 205  
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys  
 210 215 220  
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg  
 225 230 235 240  
 Glu Arg Val Leu Gln Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg  
 245 250 255  
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly  
 260 265 270  
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290				295					300					
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
305				310					315					320	
Phe	Ser														

<210> 4371  
 <211> 907  
 <212> DNA  
 <213> Homo sapiens

<400> 4371  
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 aagagcatca cgctgcccc cgacgagatc ttccgcaacc tggagaacgc caagcgcttc  
 120  
 gccatcgaca taggcgggtc gttaaccaag ctggcctact attcaacggg acagcacaaa  
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 240  
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 300  
 aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtcaa cacagagacc  
 360  
 aaggtcatcc aggcgaccgg gggcggggcc tacaagttca aggacctcat cgaagagaag  
 420  
 ctgcggctga aagtcgacaa ggaggacgtg atgacgtgcc tgattaaggg gtgcaacttc  
 480  
 gtgctcaaga acatccccca tgaggccttc gtgtaccaga aggattccga ccctgagttc  
 540  
 cggttccaga ccaaccaccc ccacattttc ccctatcttc ttgtcaatat cggctctgga  
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 660  
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 720  
 ctctgcacc tggcctcgag gggccagcac agcaatgtgg acatgctggt gcgggacgtc  
 780  
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 900  
 atgatca  
 907

<210> 4372  
 <211> 302  
 <212> PRT  
 <213> Homo sapiens

<400> 4372  
 Thr Phe Lys Met Ala Glu Cys Gly Ala Ser Gly Ser Gly Ser Ser Gly

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Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu			
35	40	45	
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val			
50	55	60	
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro			
65	70	75	80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe			
85	90	95	
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys			
100	105	110	
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly			
115	120	125	
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys			
130	135	140	
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe			
145	150	155	160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser			
165	170	175	
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr			
180	185	190	
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr			
195	200	205	
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr			
210	215	220	
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu			
225	230	235	240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu			
245	250	255	
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly			
260	265	270	
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu			
275	280	285	
Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile			
290	295	300	

&lt;210&gt; 4373

&lt;211&gt; 1017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4373

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120  
ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catttatttc aaggagaaaa  
180  
gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc  
240  
tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct  
300

tgattgctcc agggcccaca acggcagtggt cctacatgtc ggtgaaatgt gtggatgccc  
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 420  
 tccgagacat tgaagaggca attccaaggg aaattgaagc caatgacatc gtgttttctg  
 480  
 ttcacattcc cctccccac atggagatga gtccttgggt ccaattcatg ctgtttatcc  
 540  
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 660  
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 720  
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 780  
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 900  
 ggtttgccat gaagaccttc cttacgcccga gcattcttcat cattatgggtg tggatttgga  
 960  
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 1017

&lt;210&gt; 4374

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4374

Met	Ala	Gly	Ala	Ile	Ile	Glu	Asn	Met	Ser	Thr	Lys	Lys	Leu	Cys	Ile
1				5					10					15	
Val	Gly	Gly	Ile	Leu	Leu	Val	Phe	Gln	Ile	Ile	Ala	Phe	Leu	Val	Gly
			20					25					30		
Gly	Leu	Ile	Ala	Pro	Gly	Pro	Thr	Thr	Ala	Val	Ser	Tyr	Met	Ser	Val
		35					40					45			
Lys	Cys	Val	Asp	Ala	Arg	Lys	Asn	His	His	Lys	Thr	Lys	Trp	Phe	Val
	50					55				60					
Pro	Trp	Gly	Pro	Asn	His	Cys	Asp	Lys	Ile	Arg	Asp	Ile	Glu	Glu	Ala
65				70					75				80		
Ile	Pro	Arg	Glu	Ile	Glu	Ala	Asn	Asp	Ile	Val	Phe	Ser	Val	His	Ile
			85					90					95		
Pro	Leu	Pro	His	Met	Glu	Met	Ser	Pro	Trp	Phe	Gln	Phe	Met	Leu	Phe
		100						105					110		
Ile	Leu	Gln	Leu	Asp	Ile	Ala	Phe	Lys	Leu	Asn	Asn	Gln	Ile	Arg	Glu
		115				120						125			
Asn	Ala	Glu	Val	Ser	Met	Asp	Val	Ser	Leu	Ala	Tyr	Arg	Asp	Asp	Ala
	130					135					140				
Phe	Ala	Glu	Trp	Thr	Glu	Met	Ala	His	Glu	Arg	Val	Pro	Arg	Lys	Leu
145				150					155					160	
Lys	Cys	Thr	Phe	Thr	Ser	Pro	Lys	Thr	Pro	Glu	His	Glu	Gly	Arg	Tyr
			165					170					175		
Tyr	Glu	Cys	Asp	Val	Leu	Pro	Phe	Met	Glu	Ile	Gly	Ser	Val	Ala	His

			180					185					190			
Lys	Phe	Tyr	Leu	Leu	Asn	Ile	Arg	Leu	Pro	Val	Asn	Glu	Lys	Lys	Lys	
			195					200					205			
Ile	Asn	Val	Gly	Ile	Gly	Glu	Ile	Lys	Asp	Ile	Arg	Leu	Val	Gly	Ile	
			210					215					220			
His	Gln	Asn	Gly	Gly	Phe	Thr	Lys	Val	Trp	Phe	Ala	Met	Lys	Thr	Phe	
225					230					235					240	
Leu	Thr	Pro	Ser	Ile	Phe	Ile	Ile	Met	Val	Trp	Tyr	Trp	Arg	Arg	Ile	
				245					250					255		
Thr	Met	Met	Ser	Arg	Pro	Pro	Val	Leu	Leu	Glu	Lys	Val	Ile	Phe	Ala	
			260					265					270			

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<210> 4375
<211> 1966
<212> DNA
<213> Homo sapiens
```

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120
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360
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420
gttgctacca tcacagaaat ccccccggtt atcttcctcc ccaacttctt tgtgcagagg
480
aagtgctga ggcccttcg gaccagaca ggaggaacca taatggcggg gaagctggct
540
gtggagcgag gctgggcat caacgtgggg ggtggcttcc accactgctc cagcgacctt
600
ggcgggggct tctgtgccta tgcggacatc acgtcgcca tcaagtttct gtttgagcgt
660
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720
gagcgagact tcatggacga caagtgtgtg acatgcatgg atgtctacaa ccgccacatc
780
taccagggg accgctttgc caagcaggcc atcaggcgga aggtggagct ggagtggggc
840
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900
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960
ggggggctgt ccatcagccc agcgggcacg gtgaagcggg atgagctggt gttccggatg
1020
gtccgtggcc gccgggtgcc catccttatg gtgacctcag gcgggtacca gaagcgaca
1080

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gcccgcacatca ttgctgactc cataacttaat ctgtttggcc tggggctcat tgggcctgag  
 1140  
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 1200  
 cccttgctgc cctgcctgtc acgtggccct gcctatccgc cccttagtgc tttttgtttt  
 1260  
 ctaacctcat ggggtggtgg aggcagcctt cagttagcat ggaggggagc ggccatccct  
 1320  
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 1440  
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 1800  
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 1860  
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 1920  
 gtcttgctg ttcagtcaa ggggcaggtt ttggggggag gaattc  
 1966

&lt;210&gt; 4376

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4376

Lys	Val	Pro	Ala	Leu	Tyr	Thr	Thr	Thr	Ser	Gly	Arg	Cys	Ser	Trp	Arg
1				5					10					15	
Asp	Phe	Leu	Met	Phe	Leu	Ser	Thr	Leu	Ser	Arg	Tyr	Ser	Ser	Ser	Ser
			20					25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35					40					45			
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50				55				60						
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70				75					80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
			85					90					95		
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
		100						105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Leu	Val	Val	His	Thr
	115						120					125			
Arg	Arg	Tyr	Leu	Asn	Glu	Leu	Lys	Trp	Ser	Phe	Ala	Val	Ala	Thr	Ile



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      130              135              140
Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
145              150              155              160
Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
      165              170              175
Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
      180              185              190
Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
      195              200              205
Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
      210              215              220
Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
225              230              235              240
Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
      245              250              255
Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
      260              265              270
Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
      275              280              285
Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
      290              295              300
Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
305              310              315              320
Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
      325              330              335
Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
      340              345              350
Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
      355              360              365
Leu Asn Leu Phe Gly Leu Gly Leu Ile Gly Pro Glu Ser Pro Ser Val
      370              375              380
Ser Ala Gln Asn Ser Asp Thr Pro Leu Leu Pro Pro Ala Val Pro
385              390              395

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&lt;210&gt; 4377

&lt;211&gt; 812

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4377

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120
cgaagcctga ggctgctgac cctggagcag ccgcaggggg attctatgat gacctgcgag
180
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240
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300
gtggtgacct gcgaggtgga cgcgagccc ccggagctgg gacggcccct gtggaggcag
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420

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ctgctggcgg cgggagagc cggcaccttc gacgtggcgg tggtagatgc ggacaaggag  
 480  
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 540  
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 600  
 gagtgtgtgc gaaacctaaa cgaacgcac cggcgggacg tcagggtcta catcagcctc  
 660  
 ctgcccctgg gcgatggact caccttgcc ttcaagatct agggctggcc cctagtgtg  
 720  
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 780  
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 812

<210> 4378  
 <211> 233  
 <212> PRT  
 <213> Homo sapiens

<400> 4378  
 Xaa Leu Gly Arg Arg Cys Pro Pro Trp Arg Gly Arg Arg Glu Gln Gly  
 1 5 10 15  
 Leu Leu Pro Pro Glu Asp Ser Arg Leu Trp Gln Tyr Leu Leu Ser Arg  
 20 25 30  
 Ser Met Arg Glu His Pro Ala Leu Arg Ser Leu Arg Leu Leu Thr Leu  
 35 40 45  
 Glu Gln Pro Gln Gly Asp Ser Met Met Thr Cys Glu Gln Ala Gln Leu  
 50 55 60  
 Leu Ala Asn Leu Ala Arg Leu Ile Gln Ala Lys Lys Ala Leu Asp Leu  
 65 70 75 80  
 Gly Thr Phe Thr Gly Tyr Ser Ala Leu Ala Leu Ala Leu Ala Pro  
 85 90 95  
 Ala Asp Gly Arg Val Val Thr Cys Glu Val Asp Ala Gln Pro Pro Glu  
 100 105 110  
 Leu Gly Arg Pro Leu Trp Arg Gln Ala Glu Ala Glu His Lys Ile Arg  
 115 120 125  
 Leu Arg Leu Lys Pro Ala Leu Glu Thr Leu Asp Glu Leu Leu Ala Ala  
 130 135 140  
 Gly Glu Ala Gly Thr Phe Asp Val Ala Val Val Asp Ala Asp Lys Glu  
 145 150 155 160  
 Asn Cys Ser Ala Tyr Tyr Glu Arg Cys Leu Gln Leu Leu Arg Pro Gly  
 165 170 175  
 Gly Ile Leu Ala Val Leu Arg Val Leu Trp Arg Gly Lys Val Leu Gln  
 180 185 190  
 Pro Pro Lys Gly Asp Val Ala Ala Glu Cys Val Arg Asn Leu Asn Glu  
 195 200 205  
 Arg Ile Arg Arg Asp Val Arg Val Tyr Ile Ser Leu Leu Pro Leu Gly  
 210 215 220  
 Asp Gly Leu Thr Leu Ala Phe Lys Ile  
 225 230

<210> 4379  
 <211> 2347

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4379

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120  
ggggaggacc cggccccac ctgcctcacc cgcacggggc tgttcctgcg tttcctctgc  
180  
agccggttcc cgcggggcgc acagctgcgg ggcgcgctgc ggacgctgag cctcctggcc  
240  
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300  
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720  
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1080  
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1140  
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1380  
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1500

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 2040  
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 2160  
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 2280  
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 2340  
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 2347

&lt;210&gt; 4380

&lt;211&gt; 652

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4380

Met	Glu	Lys	Gly	Glu	Asp	Pro	Val	Pro	Thr	Cys	Leu	Thr	Arg	Thr	Gly
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Leu	Phe	Leu	Arg	Phe	Leu	Cys	Ser	Arg	Phe	Pro	Arg	Gly	Ala	Gln	Leu
			20					25					30		
Arg	Gly	Ala	Leu	Arg	Thr	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Gly	Leu	Trp
		35					40					45			
Ala	Gln	Thr	Ser	Val	Leu	His	Arg	Glu	Asp	Leu	Glu	Arg	Leu	Gly	Val
		50				55				60					
Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
65					70				75					80	
Asp	Arg	Val	Ser	Lys	Gly	Cys	Tyr	Ser	Phe	Ile	His	Leu	Ser	Phe	Gln
			85					90					95		
Gln	Phe	Leu	Thr	Ala	Leu	Phe	Tyr	Thr	Leu	Glu	Lys	Glu	Glu	Glu	Glu
		100					105					110			
Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
		115				120						125			
Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

130		135		140
Tyr Ser Phe Gly Leu	Ala Asn Glu Lys Arg	Ala Lys Glu Leu Glu Ala		
145	150	155	160	
Thr Phe Gly Cys Arg	Met Ser Pro Asp Ile	Lys Gln Glu Leu Leu Arg		
165	170	175		
Cys Asp Ile Ser Cys	Lys Gly Gly His Ser	Thr Val Thr Asp Leu Gln		
180	185	190		
Glu Leu Leu Gly Cys	Leu Tyr Glu Ser Gln	Glu Glu Glu Leu Val Lys		
195	200	205		
Glu Val Met Ala Gln	Phe Lys Glu Ile Ser	Leu His Leu Asn Ala Val		
210	215	220		
Asp Val Val Pro Ser	Ser Phe Cys Val Lys	His Cys Arg Asn Leu Gln		
225	230	235	240	
Lys Met Ser Leu Gln	Val Ile Lys Glu Asn	Leu Pro Glu Asn Val Thr		
245	250	255		
Ala Ser Glu Ser Asp	Ala Glu Val Glu Arg	Ser Gln Asp Asp Gln His		
260	265	270		
Met Leu Pro Phe Trp	Thr Asp Leu Cys Ser	Ile Phe Gly Ser Asn Lys		
275	280	285		
Asp Leu Met Gly Leu	Ala Ile Asn Asp Ser	Phe Leu Ser Ala Ser Leu		
290	295	300		
Val Arg Ile Leu Cys	Glu Gln Ile Ala Ser	Asp Thr Cys His Leu Gln		
305	310	315	320	
Arg Val Val Phe Lys	Asn Ile Ser Pro Ala	Asp Ala His Arg Asn Leu		
325	330	335		
Xaa Pro Xaa Ala Leu	Arg Gly His Lys Thr	Val Thr Tyr Leu Thr Leu		
340	345	350		
Gln Gly Asn Asp Gln	Asp Asp Met Phe Pro	Ala Leu Cys Glu Val Leu		
355	360	365		
Arg His Pro Glu Cys	Asn Leu Arg Tyr Leu	Gly Leu Val Ser Cys Ser		
370	375	380		
Ala Thr Thr Gln Gln	Trp Ala Asp Leu Ser	Leu Ala Leu Glu Val Asn		
385	390	395	400	
Gln Ser Leu Thr Cys	Val Asn Leu Ser Asp	Asn Glu Leu Leu Asp Glu		
405	410	415		
Gly Ala Lys Leu Leu	Tyr Thr Thr Leu Arg	His Pro Lys Cys Phe Leu		
420	425	430		
Gln Arg Leu Ser Leu	Glu Asn Cys His Leu	Thr Glu Ala Asn Cys Lys		
435	440	445		
Asp Leu Ala Ala Val	Leu Val Val Ser Arg	Glu Leu Thr His Leu Cys		
450	455	460		
Leu Ala Lys Asn Pro	Ile Gly Asn Thr Gly	Val Lys Phe Leu Cys Glu		
465	470	475	480	
Gly Leu Arg Tyr Pro	Glu Cys Lys Leu Gln	Thr Leu Val Leu Trp Asn		
485	490	495		
Cys Asp Ile Thr Ser	Asp Gly Cys Cys Asp	Leu Thr Lys Leu Leu Gln		
500	505	510		
Glu Lys Ser Ser Leu	Leu Cys Leu Asp Leu	Gly Leu Asn His Ile Gly		
515	520	525		
Val Lys Gly Met Lys	Phe Leu Cys Glu Ala	Leu Arg Lys Pro Leu Cys		
530	535	540		
Asn Leu Arg Cys Leu	Trp Leu Trp Gly Cys	Ser Ile Pro Pro Phe Ser		
545	550	555	560	
Cys Glu Asp Val Cys	Ser Ala Leu Ser Cys	Asn Gln Ser Leu Val Thr		

Leu	Asp	Leu	Gly	Gln	Asn	Pro	Leu	Gly	Ser	Ser	Gly	Val	Lys	Met	Leu
			580					585					590		
Phe	Glu	Thr	Leu	Thr	Cys	Ser	Ser	Gly	Thr	Leu	Arg	Thr	Leu	Arg	Leu
			595				600					605			
Lys	Ile	Asp	Asp	Phe	Asn	Asp	Glu	Leu	Asn	Lys	Leu	Leu	Glu	Glu	Ile
			610			615					620				
Glu	Glu	Lys	Asn	Pro	Gln	Leu	Ile	Ile	Asp	Thr	Glu	Lys	His	His	Pro
625					630					635					640
Trp	Glu	Glu	Arg	Pro	Ser	Ser	His	Asp	Phe	Met	Ile				
				645					650						

```
<210> 4381
<211> 1638
<212> DNA
<213> Homo sapiens
```

<400> 4381  
nnagagcccg gggcgagtgg gcctctgctc gtgggtggtt ctcgaggagg tcagctcccg  
60  
cgtgtctccg ctcgacaggg tgcttgggca gagcccatcg ggtaggcgcg ggccatggcg  
120  
cagtacaagg gcaccatgcg cgaggcaggc cgtgccatgc acctcctcaa gaagcgcgaa  
180  
aggcagcggg agcagatgga ggtgctgaag cagcgcatcg ccgaggagac catcctcaag  
240  
tcgcaggtgg acaagagggt ctcggcgcac tacgacgccg tggaggccga gctgaagtcc  
300  
agcgcggtgg gcctggtgac cctgaacgac atgaaggccc ggcaggaggc cctggtcagg  
360  
gagcgcgagc ggcagctggc caagcgccag cacctggagg agcagcggct gcagcaggag  
420  
cggcagcggg agcaggagca gcggcgcgag cgcaagcgta agatctcctg cctgtccttt  
480  
gcactagacg acctcgatga ccaggccgac gcggccgagg ccaggcgcgc cggaaacctg  
540  
ggcaagaacc ccgacgtgga caccagcttc ctgccagacc gcgaccgcga ggaggaggag  
600  
aaccggctcc gagaggagct gcgccaagag tgggaggcgc agcgcgagaa agtgaaggac  
660  
gaggagatgg aggtcacctt cagctactgg gacggctcgg gccaccggcg cacggtgcgg  
720  
gtgcgcaagg gcaacacggg gcagcagttc ctgaagaagg cgctgcaggg gctgcgcaag  
780  
gacttcctgg agctgcgctc cgccggcggtg gagcagctca tgttcatcaa ggaggacctc  
840  
atcctgccgc actaccacac cttctacgac ttcacatcgc ccaggggcgag gggcaagagc  
900  
gggccgctct tcagcttcga tgtgcacgat gacgtgcgcc tgctcagcga cgccaccatg  
960  
gagaaggacg agtcgcacgc gggcaagggtg gtgctgcgca gctggtacga gaagaacaag  
1020  
cacatcttcc ccgccagccg ctgggaggcc tatgaccccg agaagaagtg ggacaagtac  
1080

accatccgct aacacccgcc tgccagagcg gaaaccgggg gtggggggag acactcattt  
 1140  
 ctaggcccca tcaccagtca cttgatttcg tgaccttgat ttcttcccc aaatttaata  
 1200  
 aagacagagg gttctcatga ttcacattgg ttgtgctatt gctgatgtta tgctttgggt  
 1260  
 gcttggttg tcttttctga gtattttagt gttgccacct ggatttgctg cattgctctg  
 1320  
 ctgagctgta ttgaaaccat gactggggccc actgtcagac agaaattaga ataggaggca  
 1380  
 cattttttac ctgggtggta tgagcatgga cttggggggc acagtgactg agtttgattc  
 1440  
 ccgacacagc ctctctcttg ctgtgtagtt ttgggtaagc ttattaaacc cccatgcctc  
 1500  
 agtttggtca cctgtaaaag gaaataacaa gagcacttac tttataagat tgatgtgagt  
 1560  
 attaagtga ttaatatattg taaaacgctt agctcttaat aaatgtttct gttgttatta  
 1620  
 aaaaaaaaaa aaaaaaaaa  
 1638

&lt;210&gt; 4382

&lt;211&gt; 325

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4382

Met	Ala	Gln	Tyr	Lys	Gly	Thr	Met	Arg	Glu	Ala	Gly	Arg	Ala	Met	His
1				5					10					15	
Leu	Leu	Lys	Lys	Arg	Glu	Arg	Gln	Arg	Glu	Gln	Met	Glu	Val	Leu	Lys
		20					25					30			
Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
		35				40					45				
Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
	50					55				60					
Val	Gly	Leu	Val	Thr	Leu	Asn	Asp	Met	Lys	Ala	Arg	Gln	Glu	Ala	Leu
65					70				75					80	
Val	Arg	Glu	Arg	Glu	Arg	Gln	Leu	Ala	Lys	Arg	Gln	His	Leu	Glu	Glu
		85						90					95		
Gln	Arg	Leu	Gln	Gln	Glu	Arg	Gln	Arg	Glu	Gln	Glu	Gln	Arg	Arg	Glu
		100					105					110			
Arg	Lys	Arg	Lys	Ile	Ser	Cys	Leu	Ser	Phe	Ala	Leu	Asp	Asp	Leu	Asp
	115					120					125				
Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
	130				135					140					
Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
145					150				155					160	
Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
		165					170						175		
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
		180					185					190			
Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
	195					200					205				
Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

```

      210              215              220
Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
225              230              235              240
Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245              250              255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
      290              295              300
Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
305              310              315              320
Lys Tyr Thr Ile Arg
      325

```

<210> 4383  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

```

<400> 4383
cgagatctgg cgtgttttat acagtttgaa aatgtcaaca ttactatgg gactcagcat
60
aaaatgaaat ataaagcgcc cactgactat tgctttgttt taaagcacc ccaaattcag
120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
gtcatgggaa tacggatagc caagtatggg aagactctct atgataacta ccagcgggct
240
gtggcaaagg ctggacttgc ctctcggtgg acaaacttgg ggacagtcaa tgcagctgca
300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agccaatgg acagattccc
360
caggctacac atttcttcag tgctgttctc caagaagccc agagacatgc tgaaaactn
419

```

<210> 4384  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

```

<400> 4384
Arg Asp Leu Ala Cys Phe Ile Gln Phe Glu Asn Val Asn Ile Tyr Tyr
1      5      10      15
Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
      20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
      65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

```



				85				90					95		
Asn	Ala	Ala	Ala	Pro	Ala	Gln	Pro	Phe	Thr	Gly	Pro	Lys	Thr	Gly	Thr
			100					105					110		
Thr	Gln	Pro	Asn	Gly	Gln	Ile	Pro	Gln	Ala	Thr	His	Phe	Phe	Ser	Ala
		115					120					125			
Val	Leu	Gln	Glu	Ala	Gln	Arg	His	Ala	Glu	Asn					
	130					135									

```
<210> 4385
<211> 754
<212> DNA
<213> Homo sapiens
```

```

<400> 4385
nttttagagga ggggtctgggc tagtttattt tctctctgga ggggtcttca gggagagcag
60
tcccggtctgc tcaagcgggt gggaaggagc ggccactctt gctgaaaggt ggctgggaga
120
ggtcctggtc agagtcggag tcagagtccc aggaggggag tggagggctc aggcactggt
180
gcccttgtg gcctcttagg ctcgaggcct tgggacaggc ccccgagcac aaagtgaggc
240
tgtctatgga gttctgcagc acgtgcacag cagaccatat atcactcagt tccttctgga
300
ggtcatcctt ccagcagcca ctggctccct gcggtatctc ttcagtctcc ggacaggcgg
360
tgtctcatg accctgctgc ttcattcttg tcaggatttt gcggcatttc acctgcgttt
420
tctgcatttt ctgaatgttc accaagttct ctgagatctc atcctcctgc gcttcttcaa
480
gctgctgaat cttgatttgc tgcaagcagc tctccttctc caacatggtc actgagtgg
540
tcaggaactc gaaagccttg gtctgggcct gtaactggct cttgagtgac ccaagttcac
600
atcgcaggag cttctgggag tcgggaatca tcacaatggc cttggctttg actttggaag
660
agctggcttc caagggttc acataccacc tgttcatgct ctcccatcag ggaccacgaa
720
gaaagtccctc agctgtgacg ctgaagtttg atca
754

```

```
<210> 4386
<211> 85
<212> PRT
<213> Homo sapiens
```

```

<400> 4386
Gly Cys Leu Trp Ser Ser Ala Ala Arg Ala Gln Gln Thr Ile Tyr His
 1             5             10             15
Ser Val Pro Ser Gly Gly His Pro Ser Ser Ser His Trp Leu Pro Ala
      20             25             30
Val Ser Leu Gln Ser Pro Asp Arg Arg Leu Ser His Asp Pro Ala Ala
      35             40             45
Ser Ser Trp Ser Gly Phe Cys Gly Ile Ser Pro Ala Phe Ser Ala Phe

```

50                      55                      60  
 Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu  
 65                      70                      75                      80  
 Gln Ala Ala Glu Ser  
                     85

```
<210> 4387
<211> 341
<212> DNA
<213> Homo sapiens
```

```
<400> 4387
ggggggggcc ttcccatctt tttccctttt atgggggggg ggtttttttaa aaaaaaaggg
60
gggggggggg aaaagggggg ggggggaagg gggttttccc accccaaaaa accccccccc
120
ccccccgggn gggggggaag gggggggggg tttttccccc ctcccccccc ccctaataaaa
180
aaaaccggga aaattttttt tccccccccc ccaaaaaaaaa aaaaaaaacc gggggggcccc
240
cctttttttg gggggggggg tttttttttt tttttttttt tttttttttt ttttttttac
300
aaaacagaga atgtttattg tgccagaggg tggagtgtgc n
341
```

```
<210> 4388
<211> 113
<212> PRT
<213> Homo sapiens
```

[illegible]

```
<210> 4389
<211> 1895
<212> DNA
<213> Homo sapiens
```

<400> 4389

nggtgttttg cgggctgccg tacagcgaag agcgcgtgct gaagagttgc gcgtggcgtg  
60  
gctgccgagg gccgcgcggt gtacgtggtg gacgacgcag ctgtcctggg cgcagaggac  
120  
ccagcgggtgt acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc  
180  
gtggaacgac gcctgagtcg ccacgacgtc gtcacccctgg actcgcttaa ctacatcaaa  
240  
ggtttccgtt acgagctcta ctgcctggca cgggcggcgc gcaccccgct ctgcctggtc  
300  
tactgcgtac ggcccggcgg cccgatcgcg ggacctcagg tggcgggcgc gaacgagaac  
360  
cctggccgga acgtcagtggt gagttggcgg ccacgcgctg aggaggacgg gagagcccag  
420  
gcggcgggca gcagcgctct cagggaaactg catactgcgg actctgtagt aaatggaagt  
480  
gccagggccg acgtacccaa ggaactggag cgagaagaat ccggggctgc ggagtctcca  
540  
gctcttgtga ctccggattc agagaaatct gcaaagcatg ggtccggtgc cttttactct  
600  
cccgaactcc tggaggccct aacgctgcgc tttgaggctc ccgattctcg gaatcgctgg  
660  
gaccggcctt tattcacttt ggtgggcata gaggagccgt tgccccggc ggggatccgc  
720  
tctgccctgt ttgagaaccg ggccccacca ccccatcagt ctacgcagtc ccagccccctc  
780  
gcctccggca gctttctgca ccagttggac caggtcacga gtcaagtact ggccggattg  
840  
atggaagcgc agaagagcgc tgtccccggg gacttgctca cgcttcctgg taccacagag  
900  
cacttgcggt ttaccggcc cttgaccatg gcagaactga gtcgccttcg tcgccagttt  
960  
atttcgtaca ctaaaatgca tccaacaat gagaacttgc cgcaactggc caacatgttt  
1020  
cttcagtatt tgagccagag cctgcactaa ccagaggagg taggggggaa gccatggctt  
1080  
ctgatctcca ctccacttta tttctctggg aaaaataggc tgcaggctctc cagagcatat  
1140  
cgatgcagta ctgtactaga gctgttgtag ctgattcact caaactttcc tgcatacccc  
1200  
tgtgccaggc cttgggttta cagcataagt tcagactaaa gagaatggag aactattgtg  
1260  
gtgcaacctg gcaaaccct cagaggacag agctaagggtg gacagggatt acctagattg  
1320  
gacccactt gggctatcac agagcattga ccattggctt ccctcatctg aggcgtggga  
1380  
gagcagactg gatagatgag aattgtttta aaacaattgt gaacagaaac tgaagatggt  
1440  
acagttctac atctgcacct gccctttttt cataccacaa aagtattttt tgagtactgt  
1500  
actgactttt tgctagtttc tattctggga ccgagttcac agataaatcc attggtttgt  
1560  
atccttgaga aactttgttt ttgtggaagt aagaaagtta tctactagat tatttcctct  
1620

aataaaatct tttaaaatag tctactggaa tctctttcac ttaatgttcc ctgtgtaact  
 1680  
 tcatgtaaca ttttaggtat acttgtcatt gttctgcctt taagtgaagt agtattttga  
 1740  
 tagttctgag agagtagatg ttttgagcta ctctacagta attatattat gacaatttcc  
 1800  
 gtaactgttt tgcttcattc tgcatttcaa ggcaaatac attgtaagct tgtctttcat  
 1860  
 tcttcattga tttcattgaa caaatggtag gtacc  
 1895

<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

Arg	Val	Ala	Arg	Gly	Val	Ala	Ala	Glu	Gly	Arg	Ala	Val	Tyr	Val	Val
1			5						10					15	
Asp	Asp	Ala	Ala	Val	Leu	Gly	Ala	Glu	Asp	Pro	Ala	Val	Tyr	Gly	Asp
		20						25					30		
Ser	Ala	Arg	Glu	Lys	Ala	Leu	Arg	Gly	Ala	Leu	Arg	Ala	Ser	Val	Glu
		35				40						45			
Arg	Arg	Leu	Ser	Arg	His	Asp	Val	Val	Ile	Leu	Asp	Ser	Leu	Asn	Tyr
	50				55						60				
Ile	Lys	Gly	Phe	Arg	Tyr	Glu	Leu	Tyr	Cys	Leu	Ala	Arg	Ala	Ala	Arg
65				70					75					80	
Thr	Pro	Leu	Cys	Leu	Val	Tyr	Cys	Val	Arg	Pro	Gly	Gly	Pro	Ile	Ala
			85					90						95	
Gly	Pro	Gln	Val	Ala	Gly	Ala	Asn	Glu	Asn	Pro	Gly	Arg	Asn	Val	Ser
		100						105					110		
Val	Ser	Trp	Arg	Pro	Arg	Ala	Glu	Glu	Asp	Gly	Arg	Ala	Gln	Ala	Ala
		115					120					125			
Gly	Ser	Ser	Val	Leu	Arg	Glu	Leu	His	Thr	Ala	Asp	Ser	Val	Val	Asn
	130					135					140				
Gly	Ser	Ala	Gln	Ala	Asp	Val	Pro	Lys	Glu	Leu	Glu	Arg	Glu	Glu	Ser
145				150					155					160	
Gly	Ala	Ala	Glu	Ser	Pro	Ala	Leu	Val	Thr	Pro	Asp	Ser	Glu	Lys	Ser
			165					170						175	
Ala	Lys	His	Gly	Ser	Gly	Ala	Phe	Tyr	Ser	Pro	Glu	Leu	Leu	Glu	Ala
		180					185						190		
Leu	Thr	Leu	Arg	Phe	Glu	Ala	Pro	Asp	Ser	Arg	Asn	Arg	Trp	Asp	Arg
	195						200					205			
Pro	Leu	Phe	Thr	Leu	Val	Gly	Ile	Glu	Glu	Pro	Leu	Pro	Pro	Ala	Gly
	210					215					220				
Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
225				230					235					240	
Thr	Gln	Ser	Gln	Pro	Leu	Ala	Ser	Gly	Ser	Phe	Leu	His	Gln	Leu	Asp
			245					250					255		
Gln	Val	Thr	Ser	Gln	Val	Leu	Ala	Gly	Leu	Met	Glu	Ala	Gln	Lys	Ser
		260						265					270		
Ala	Val	Pro	Gly	Asp	Leu	Leu	Thr	Leu	Pro	Gly	Thr	Thr	Glu	His	Leu
	275					280						285			
Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

290		295		300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro				
305		310		315
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His				320
	325		330	335

&lt;210&gt; 4391

&lt;211&gt; 988

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4391

```

nagcccttct cctggcccca tggagcctcc ccacgagccc aggggcatcc gagcatgggc
60
ggcccaatgc agagggtgac gcctcctcgt ggcattggcca gcgtggggcc ccagagctat
120
ggaggtggca tgcgaccccc acccaactcc ctgcgcggcc caggcctgcc tgccatgaac
180
atggggccag gagttcgtgg cccgtggggc agccccagtg gaaactcgat cccctactcc
240
tcctcatccc ccggcagcta caccggaccc ccaggaggag gtggggcccc tggaacaccc
300
atcatgccta gccctggaga ttccaccaac tccagcgaaa acatgtacac tatcatgaac
360
cccatcgggc agggcgccgg cagggtaat ttcccgtcg gccctggccc ggaggggccc
420
atggccgcca tgagcgcgat ggagcctcac cacgtgaacg gatccctggg ctcgggcgac
480
atggacgggt tgccgaagag ttccccggc gccgtggccg gcctgagcaa cggcccgggc
540
accccgcggg acgacggcga gatggcgggc gccgggacct tcctgcaccc gttcccgagc
600
gaaagctact cgccagggat gaccatgagc gtgtgatggg gcggcagccc cgggcctctc
660
tgcgggccta ggcttctgcc cagcgccctt gctcaggggc aggggctgag gtcacacctc
720
gggcacctgg actcctggcc aatcaaggct tgcccagctg ggaggcccca cacgaaagac
780
tcttaccatt ttattaaaaa cgcaaggacc tcagagacgt tcttttctgt atggaccctt
840
cctgccattt gtattttgtc ccagagagaa aggtctcttg gggggccctt ctcccagga
900
cgtcaggggg tggggcccat aaataaatgg aagctggttt tggtttttgg taaaaaaaaa
960
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
988

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&lt;210&gt; 4392

&lt;211&gt; 211

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4392

Xaa Pro Phe Ser Trp Pro His Gly Ala Ser Pro Arg Ala Gln Gly His

1	5	10	15
Pro Ser Met Gly Gly Pro Met Gln Arg Val Thr Pro Pro Arg Gly Met			
20	25	30	
Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro			
35	40	45	
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly			
50	55	60	
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser			
65	70	75	80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Gly Pro			
85	90	95	
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser			
100	105	110	
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg			
115	120	125	
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met			
130	135	140	
Ser Ala Met Glu Pro His His Val Asn Gly Ser Leu Gly Ser Gly Asp			
145	150	155	160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser			
165	170	175	
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Ala Gly			
180	185	190	
Thr Phe Leu His Pro Phe Pro Ser Glu Ser Tyr Ser Pro Gly Met Thr			
195	200	205	
Met Ser Val			
210			

&lt;210&gt; 4393

&lt;211&gt; 2171

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4393

gaggccaccc gccccggggc ctgggctcgc tgtggactcg tcatggcgac cgagcagagg

60

cctttccacc tgggtggtgtt cggcgcgtct ggcttcaccg gccagttcgt gaccgaggag

120

gtggccccggg agcaggtgga cccggagcgg agctcccctg ccctgggctt ggcgggccc

180

tcccgggaga agctgcagcg ggtgctggag aaggcggccc tgaagctggg aagaccaaca

240

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300

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 <212> PRT  
 <213> Homo sapiens

<400> 4394

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Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
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Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
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Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
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Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
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Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
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Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
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Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
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Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

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&lt;210&gt; 4395

&lt;211&gt; 1893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4395

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&lt;210&gt; 4396

&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4396

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<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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<212> PRT

<213> Homo sapiens

<400> 4398

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<212> DNA
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723

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<210> 4400

<211> 241  
 <212> PRT  
 <213> Homo sapiens

<400> 4400

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Asp	Glu	Ile	Lys	Gly	Lys	Asp	Arg	Val	Ile	Leu	Ala	Leu	Glu	Lys	Glu
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Ser	Ser	Pro	Lys	Arg	Glu	Leu	Pro	Pro	Gly	Ile	Gly	Asp	Met	Val	Glu
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Leu	Met	Gly	Val	Gln	Asp	Gln	His	Met	Asp	Glu	Arg	Asp	Val	Arg	Arg
			85					90					95		
Phe	Gln	Leu	Lys	Ile	Ala	Glu	Leu	Asn	Ser	Val	Ile	Arg	Lys	Leu	Glu
		100						105					110		
Asp	Arg	Asn	Thr	Leu	Leu	Ala	Asp	Glu	Arg	Asn	Glu	Leu	Leu	Lys	Arg
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Lys	Leu	Ser	Ala	Gln	Ala	Ser	Leu	Lys	Arg	His	Thr	Ser	Leu	Asn	Asp
		180				185						190			
Leu	Ser	Leu	Thr	Arg	Asp	Glu	Gln	Glu	Ile	Glu	Phe	Leu	Arg	Leu	Gln
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Val	Leu	Glu	Gln	Gln	His	Val	Ile	Asp	Asp	Leu	Ser	Leu	Glu	Arg	Glu
	210				215					220					
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Lys															

<210> 4401  
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 <212> DNA  
 <213> Homo sapiens

<400> 4401

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300

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&lt;210&gt; 4402

&lt;211&gt; 252

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4402

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Ser	Cys	Asn	Cys	Tyr	Met	Glu	Ala	Leu	Ala	Leu	Val	Gly	Ala	Trp	Tyr
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Thr	Ala	Arg	Lys	Ser	Ile	Thr	Val	Ile	Cys	Asp	Phe	Tyr	Ser	Leu	Ile
		35					40					45			
Arg	Leu	His	Phe	Ile	Pro	Arg	Leu	Gly	Ser	Arg	Ala	Asp	Leu	Ile	Lys
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Gln	Tyr	Gly	Arg	Trp	Ala	Val	Val	Ser	Gly	Ala	Thr	Asp	Gly	Ile	Gly
65					70					75				80	
Lys	Ala	Tyr	Ala	Glu	Glu	Leu	Ala	Ser	Arg	Gly	Leu	Asn	Ile	Ile	Leu
			85					90					95		
Ile	Ser	Arg	Asn	Glu	Glu	Lys	Leu	Gln	Val	Val	Ala	Lys	Asp	Ile	Ala
			100					105					110		
Asp	Thr	Tyr	Lys	Val	Glu	Thr	Asp	Ile	Ile	Val	Ala	Asp	Phe	Ser	Ser
		115				120						125			
Gly	Arg	Glu	Ile	Tyr	Leu	Pro	Ile	Arg	Glu	Ala	Leu	Lys	Asp	Lys	Asp
	130					135					140				
Val	Gly	Ile	Leu	Val	Asn	Asn	Val	Gly	Val	Phe	Tyr	Pro	Tyr	Pro	Gln



145		150		155		160									
Tyr	Phe	Thr	Gln	Leu	Ser	Glu	Asp	Lys	Leu	Trp	Asp	Ile	Ile	Asn	Val
			165						170					175	
Asn	Ile	Ala	Ala	Ser	Leu	Met	Val	His	Val	Val	Leu	Pro	Gly	Met	
		180					185				190				
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Leu	Gln	Pro	Thr	Pro	Gln	Leu	Ala	Ala	Phe	Ser	Ala	Ser	Lys	Ala	Tyr
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Leu	Asp	His	Phe	Ser	Arg	Ala	Leu	Gln	Tyr	Glu	Tyr	Ala	Ser	Lys	Gly
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Ile	Phe	Val	Gln	Ser	Leu	Xaa	Pro	Phe	Tyr	Val	Ala				
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&lt;210&gt; 4403

&lt;211&gt; 4237

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4403

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1020

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4237

&lt;210&gt; 4404

&lt;211&gt; 779

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4404

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 Pro Thr Arg Glu Ala Ser Gly Gln Gln Ser Met Val Glu Gln Pro Pro  
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 Gly Met Met Pro Asn Gly Gln Asp Met Ser Thr Met Glu Ser Gly Pro  
 35 40 45  
 Asn Asn His Gly Asn Phe Gln Gly Asp Ser Asn Phe Asn Arg Met Trp  
 50 55 60  
 Gln Pro Glu Trp Gly Met His Gln Gln Pro Pro His Pro Pro Pro Asp  
 65 70 75 80  
 Gln Pro Trp Met Pro Pro Thr Pro Gly Pro Met Asp Ile Val Pro Pro  
 85 90 95  
 Ser Glu Asp Ser Asn Ser Gln Asp Ser Gly Glu Phe Ala Pro Asp Asn  
 100 105 110  
 Arg His Ile Phe Asn Gln Asn Asn His Asn Phe Gly Gly Pro Pro Asp  
 115 120 125  
 Asn Phe Ala Val Gly Pro Val Asn Gln Phe Asp Tyr Gln His Gly Ala  
 130 135 140  
 Ala Phe Gly Pro Pro Gln Gly Gly Phe His Pro Pro Tyr Trp Gln Pro  
 145 150 155 160  
 Gly Pro Pro Gly Pro Pro Ala Pro Pro Gln Asn Arg Arg Glu Arg Pro  
 165 170 175  
 Ser Ser Phe Arg Asp Arg Gln Arg Ser Pro Ile Ala Leu Pro Val Lys  
 180 185 190  
 Gln Glu Pro Pro Gln Ile Asp Ala Val Lys Arg Arg Thr Leu Pro Ala  
 195 200 205  
 Trp Ile Arg Glu Gly Leu Glu Lys Met Glu Arg Glu Lys Gln Lys Lys  
 210 215 220  
 Leu Glu Lys Glu Arg Met Glu Gln Gln Arg Ser Gln Leu Ser Lys Lys  
 225 230 235 240  
 Lys Lys Lys Ala Thr Glu Asp Ala Glu Gly Gly Asp Gly Pro Arg Leu  
 245 250 255  
 Pro Gln Arg Ser Lys Phe Asp Ser Asp Glu Glu Glu Glu Asp Thr Glu  
 260 265 270  
 Asn Val Glu Ala Ala Ser Ser Gly Lys Val Thr Arg Ser Pro Ser Pro  
 275 280 285  
 Val Pro Gln Glu Glu His Ser Asp Pro Glu Met Thr Glu Glu Glu Lys  
 290 295 300  
 Glu Tyr Gln Met Met Leu Leu Thr Lys Met Leu Leu Thr Glu Ile Leu  
 305 310 315 320  
 Leu Asp Val Thr Asp Glu Glu Ile Tyr Tyr Val Ala Lys Asp Ala His  
 325 330 335  
 Arg Lys Ala Thr Lys Ala Pro Ala Lys Gln Leu Ala Gln Ser Ser Ala  
 340 345 350  
 Leu Ala Ser Leu Thr Gly Leu Gly Gly Leu Gly Gly Tyr Gly Ser Gly  
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370 375 380  
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 385 390 395 400  
 Trp Arg Lys Glu Lys Glu Gln Gln Leu Leu His Asp Lys Gln Met Glu  
 405 410 415  
 Glu Glu Lys Gln Gln Thr Glu Arg Val Thr Lys Glu Met Asn Glu Phe  
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 Ile His Lys Glu Gln Asn Ser Leu Ser Leu Leu Glu Ala Arg Glu Ala  
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&lt;210&gt; 4405

&lt;211&gt; 918

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4405

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&lt;210&gt; 4406

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4406

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		20						25					30		
Lys	Glu	Leu	Tyr	Asp	His	Ala	Glu	Ala	Thr	Ile	Val	Val	Met	Leu	Val
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Gly	Asn	Lys	Ser	Asp	Leu	Ser	Gln	Ala	Arg	Glu	Val	Pro	Thr	Glu	Glu
	50					55				60					
Ala	Arg	Met	Phe	Ala	Glu	Asn	Asn	Gly	Leu	Leu	Phe	Leu	Glu	Thr	Ser
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Glu Ile Phe	Ala Lys Val Ser Lys Gln Arg Gln Asn Ser Ile Arg Thr				
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Asn Ala Ile Thr Leu Gly Ser Ala Gln Ala Gly Gln Glu Pro Gly Pro					
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Gly Glu Lys Arg Ala Cys Cys Ile Ser Leu					
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&lt;210&gt; 4407

&lt;211&gt; 974

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4407

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&lt;210&gt; 4408

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4408

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 Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser  
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 Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly  
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 Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu  
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 115 120 125  
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&lt;210&gt; 4409

&lt;211&gt; 4217

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4409

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<210> 4410

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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Ser	His	Met	Ala	Thr	Arg	Ser	Arg	Glu	Asn	Ala	Arg	Arg	Arg	Gly	Thr
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Pro	Glu	Pro	Glu	Glu	Ala	Gly	Arg	Arg	Gly	Gly	Lys	Arg	Pro	Lys	Pro
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Pro	Pro	Gly	Val	Ala	Ser	Ala	Ser	Ala	Arg	Gly	Pro	Pro	Ala	Thr	Asp
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Gly	Leu	Gly	Ala	Lys	Val	Lys	Leu	Glu	Glu	Lys	Gln	His	His	Pro	Cys
				85					90					95	
Gln	Lys	Cys	Pro	Arg	Val	Phe	Asn	Asn	Arg	Trp	Tyr	Leu	Glu	Lys	His
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Met	Asn	Val	Thr	His	Ser	Arg	Met	Gln	Ile	Cys	Asp	Gln	Cys	Gly	Lys
		115					120					125			
Arg	Phe	Leu	Leu	Glu	Ser	Glu	Leu	Leu	Leu	His	Arg	Gln	Thr	Asp	Cys
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Val	Arg	Lys	His	Met	Val	Ala	His	Thr	Lys	Asp	Met	Pro	Phe	Thr	Cys
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Ser	Leu	Gln	His	Ser	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Glu	Asn	Cys	Asp
225				230					235					240	
Glu	Arg	Phe	Gln	Tyr	Lys	Tyr	Gln	Leu	Arg	Ser	His	Met	Ser	Ile	His
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Ile	Gly	His	Lys	Gln	Phe	Met	Cys	Gln	Trp	Cys	Gly	Lys	Asp	Phe	Asn
		260					265						270		
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		275					280					285			
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro	Asn
	290					295					300				
Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro	Cys

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Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
          325          330          335
Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
          340          345          350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
          370          375          380
Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
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Met Asn Ala Asn Asn
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<210> 4411  
 <211> 484  
 <212> DNA  
 <213> Homo sapiens

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484

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<210> 4412  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

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Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
20          25          30
Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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65					70					75					80
Ala	Pro	Ala	Ser	Arg	Gln	Arg	Val	Gly	Phe	Leu	Gly	Gln	Pro	Gln	Ser
				85					90					95	
Cys	Gln	Arg	Gln	His	Val	Ser	Leu	His	Arg	Ser	His	Gln	Ala	Pro	Leu
			100					105					110		
Asp															

&lt;210&gt; 4413

&lt;211&gt; 1097

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4413

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&lt;210&gt; 4414

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 <212> PRT  
 <213> Homo sapiens

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           20                  25                  30  
 Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp  
           35                  40                  45  
 Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val  
       50                  55                  60  
 Pro  
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<210> 4415  
 <211> 775  
 <212> DNA  
 <213> Homo sapiens

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<210> 4416  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 4416

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Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
 35           40           45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
 50           55           60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
 65           70           75           80
Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
 85           90           95
Val Gly Val Ile
          100

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&lt;210&gt; 4417

&lt;211&gt; 980

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4417

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<210> 4418  
<211> 263  
<212> PRT  
<213> Homo sapiens

<400> 4418  
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Glu Val Met Arg Glu Met Thr Lys Lys Leu Tyr Ser Gln Tyr Glu Glu  
35 40 45  
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu  
50 55 60  
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys  
65 70 75 80  
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Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln  
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Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys  
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&lt;210&gt; 4422

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4422

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			20					25					30		
Thr	Trp	Gln	Asn	Pro	Val	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Cys	Arg	Ala
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&lt;210&gt; 4423

&lt;211&gt; 2673

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4423

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&lt;210&gt; 4424

&lt;211&gt; 768

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4424

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&lt;212&gt; DNA

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Leu	Lys	Thr	Ile	Leu	Lys	Asp	Ala	Thr	Leu	Thr	Ala	Leu	Asp	Arg	Gly		
385					390				395				400				
Gln	Gln	Gln	Val	Phe	Lys	Gly	Leu	Asn	Asp	Lys	Val	Lys	Lys	Lys	Ala		
				405				410				415					
Leu	Thr	Ser	Phe	Glu	Arg	Asp	Ser	Ile	Phe	Ser	Asn	Leu	Thr	Gly	Gln		
				420				425				430					
Leu	Asp	Tyr	Gln	Gly	Phe	Glu	Lys	Ala	Asp	Met	Val	Ile	Glu	Ala	Val		
				435				440				445					
Phe	Glu	Asp	Leu	Ser	Leu	Lys	His	Arg	Val	Leu	Lys	Glu	Val	Glu	Ala		
				450				455				460					
Val	Ile	Pro	Asp	His	Cys	Ile	Phe	Ala	Ser	Asn	Thr	Ser	Ala	Leu	Pro		
465					470				475				480				
Ile	Ser	Glu	Ile	Ala	Ala	Val	Ser	Lys	Arg	Pro	Glu	Lys	Val	Ile	Gly		
				485				490				495					
Met	His	Tyr	Phe	Ser	Pro	Val	Asp	Lys	Met	Gln	Leu	Leu	Glu	Ile	Ile		
				500				505				510					
Thr	Thr	Glu	Lys	Thr	Ser	Lys	Asp	Thr	Ser	Ala	Ser	Ala	Val	Ala	Val		
				515				520				525					
Gly	Leu	Lys	Gln	Gly	Lys	Val	Ile	Ile	Val	Val	Lys	Asp	Gly	Pro	Gly		
				530				535				540					
Phe	Tyr	Thr	Thr	Arg	Cys	Leu	Ala	Pro	Met	Met	Ser	Glu	Val	Ile	Arg		
545					550				555				560				
Ile	Leu	Gln	Glu	Gly	Val	Asp	Pro	Lys	Lys	Leu	Asp	Ser	Leu	Thr	Thr		
				565				570				575					
Ser	Phe																



	595		600		605	
Glu	Arg	Phe	Gly	Gly	Gly	Asn
	610					615
Lys	Gly	Phe	Leu	Gly	Arg	Lys
	625					630
Glu	Gly	Val	Lys	Arg	Lys	Asp
						645
Ala	Ser	Leu	Lys	Leu	Pro	Pro
						660
Ile	Gln	Phe	Arg	Leu	Val	Thr
						675
Leu	Gln	Glu	Gly	Ile	Leu	Ala
						690
Val	Phe	Gly	Leu	Gly	Phe	Pro
						705
Val	Asp	Leu	Tyr	Gly	Ala	Gln
						725
Glu	Ala	Ala	Tyr	Gly	Lys	Gln
						740
His	Ala	Asn	Ser	Pro	Asn	Lys
						755
						600
						615
						630
						645
						660
						675
						690
						705
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						760

<210> 4429  
 <211> 981  
 <212> DNA  
 <213> Homo sapiens

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 aatccaggca tcacttgccc ctgattttat ttcattttca cacactctgt ttaggagaca  
 120  
 ctgcttgctc caactggctc catctctccg ttaccgggtga ggcaggcaca gtgctgcagt  
 180  
 ggcagaatgg aagtaccag gctgacttgc tctcagccag acacgacctc ttctctgagg  
 240  
 aggggtgatgc caataaatgg aactccaata ggtaggcttc gctctgcctt tccacaagtg  
 300  
 aacacacgcc gtgagtccct aaatcgccag gctccgcagc ctcgcagaaa gcctagtctt  
 360  
 cagacggtag gtatcccatt catcccttgg catcggaac caaagggagt gcagacagat  
 420  
 cccggtcgtg cactacattc ccaaacttg gcacgcacgc gaaggcttgg ggcgccccgg  
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 540  
 ctgggtgcga tgtgcagagg tagagcatcc gccagcgagg ttctgggagg cccggttacc  
 600  
 gcttcccgtt tttatggtng accgcgcgcg gtctcctggt aaccattgcc atgggcatag  
 660  
 gtggagtgcg acgcagaccc tccgcgcgcg ggcgcacta ccacctgag gtgtccaaag  
 720  
 ccgccagcgt catcaaccag gccctgtcca tgcctgaggt cagcatcgcg cacaccaacg  
 780

acacgccctt ctctctctct ctctctctct ctctctctct ctccccgtc tnnccctccc  
 840  
 gagttctccg gctctcgcgg ccggcggggc cgggcggcga acgaacgagc gagcgaacga  
 900  
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 981

<210> 4430  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

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 Leu Arg Arg Val Met Pro Ile Asn Gly Thr Pro Ile Gly Arg Leu Arg  
 20 25 30  
 Ser Ala Leu Pro Gln Val Asn Thr Arg Arg Glu Ser Leu Asn Arg Gln  
 35 40 45  
 Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro  
 50 55 60  
 Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly  
 65 70 75 80  
 Arg Ala Leu His Ser Gln Thr Leu Ala Arg Thr Arg Arg Leu Gly Ala  
 85 90 95  
 Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Ala Asp Ser Pro  
 100 105 110  
 Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser  
 115 120 125  
 Ala Ser Glu Val Leu Gly Gly Pro Val Thr Ala Ser Arg Phe Tyr Gly  
 130 135 140  
 Xaa Pro Pro Pro Val Ser Trp  
 145 150

<210> 4431  
 <211> 507  
 <212> DNA  
 <213> Homo sapiens

<400> 4431  
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 ctgggtgacc gacccatccc cgtcaccttc aagagggcca tcgcagcgc tctcttctgg  
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 cagaaggtca ggctggcttg gggcctgtgc ttcctgtcag accccatcag gtagggctgc  
 180  
 ccccgaggacc ctggccggcc tgcagggtgg tctgtgggag gctccaggcc ctcctgtgca  
 240  
 ggtccaagcg cagccaatcc tcaactcaagg ccttccctgc cctttccttc cgccacaaat  
 300  
 cccaaacaaa cgtgctgtgg tccctgcccg gtgtccacag tgccagcccc accctcccag  
 360

cccgttgccc atccctgcgg ggctgcagcc atccctctcc acagcaagga tgacgtggaa  
 420  
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 480  
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 507

<210> 4432  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 4432  
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe  
 1 5 10 15  
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg  
 20 25 30  
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly  
 35 40 45  
 Leu Cys Phe Leu Ser Asp Pro Ile Arg  
 50 55

<210> 4433  
 <211> 447  
 <212> DNA  
 <213> Homo sapiens

<400> 4433  
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 gtgaccaaca tcaccaccgt cagcctctgg gaagaattct cctccagcga cctcgcagat  
 120  
 ctcgcgttcc tggacatgag ccagaaccag ttccagtacc tgccagacgg cttcctgagg  
 180  
 aaaatgcctt ccctctccca cctgaacctc caccagaatt gcctgatgac gcttcacatt  
 240  
 cgaggagcacg agccccccgg agcgcctcacc gagctggacc tgagccacaa ccagctgtcg  
 300  
 gagctgcacc tggctccggg gctggccagc tgctgggca gcctgcgctt gttcaacctg  
 360  
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 420  
 acacttgaca tgagccacaa tcagatc  
 447

<210> 4434  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 4434  
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 1 5 10 15  
 Val Asp Gly Asn Val Thr Asn Ile Thr Thr Val Ser Leu Trp Glu Glu

20							25					30				
Phe	Ser	Ser	Ser	Asp	Leu	Ala	Asp	Leu	Arg	Phe	Leu	Asp	Met	Ser	Gln	
35				40				45								
Asn	Gln	Phe	Gln	Tyr	Leu	Pro	Asp	Gly	Phe	Leu	Arg	Lys	Met	Pro	Ser	
50			55				60									
Leu	Ser	His	Leu	Asn	Leu	His	Gln	Asn	Cys	Leu	Met	Thr	Leu	His	Ile	
65	70				75				80							
Arg	Glu	His	Glu	Pro	Pro	Gly	Ala	Leu	Thr	Glu	Leu	Asp	Leu	Ser	His	
85				90				95								
Asn	Gln	Leu	Ser	Glu	Leu	His	Leu	Ala	Pro	Gly	Leu	Ala	Ser	Cys	Leu	
100				105				110								
Gly	Ser	Leu	Arg	Leu	Phe	Asn	Leu	Ser	Ser	Asn	Gln	Leu	Leu	Gly	Val	
115			120				125									
Pro	Pro	Gly	Leu	Phe	Ala	Asn	Ala	Arg	Asn	Ile	Thr	Thr	Leu	Asp	Met	
130			135				140									
Ser				His	Asn	Gln	Ile									
145																

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<210> 4435
<211> 783
<212> DNA
<213> Homo sapiens
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120
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180
gaggggactg tgaaactcta catctgtgag ctggcactgg ccctggagta tcttcagagg
240
taccacatca tcacagaga catcaagcca gacaatatcc tgctggatga acacggacat
300
gttcacatta cagacttcaa catagcgacg gtagtgaaag gagcagaaag ggcttcctcc
360
atggctggca ccaagcccta catggctcca gaagtattcc aggtgtacat ggacagaggc
420
cccggatact cgtaccctgt cgactgggtg tccctgggca tcacagccta tgagctgctg
480
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540
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600
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780
cta
783
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<210> 4436

<211> 261  
 <212> PRT  
 <213> Homo sapiens

<400> 4436  
 Xaa Ala Arg Asp Glu Val Arg Asn Val Phe Arg Glu Leu Gln Ile Met  
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 20 25 30  
 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp  
 35 40 45  
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val  
 50 55 60  
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg  
 65 70 75 80  
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp  
 85 90 95  
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val  
 100 105 110  
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met  
 115 120 125  
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser  
 130 135 140  
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu  
 145 150 155 160  
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu  
 165 170 175  
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp  
 180 185 190  
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro  
 195 200 205  
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu  
 210 215 220  
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly  
 225 230 235 240  
 Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu  
 245 250 255  
 Glu Glu Met Ile Leu  
 260

<210> 4437  
 <211> 620  
 <212> DNA  
 <213> Homo sapiens

<400> 4437  
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 120  
 gtgtccatgc tgaagatgga cgagagcacg ctgctgcggg agggccagga gctcagcctg  
 180  
 gagaagctgc agcaggccgt gaggcagaac gggctcatgt cggggctgat gcagatgctg  
 240

ctgctgaagg tgtctgcaca catcaccgag cagctgggca tggccccagg tggcgagttc  
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 aagcagaagg acctactgga gcagatgatg gccgagatga ttggcgagtt cccagacctg  
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 620

<210> 4438  
 <211> 206  
 <212> PRT  
 <213> Homo sapiens

<400> 4438  
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 Lys Arg Asp Val Val Lys Thr Ile Arg Glu Val Gln Pro Asp Val Val  
 20 25 30  
 Val Val Glu Leu Cys Gln Tyr Arg Val Ser Met Leu Lys Met Asp Glu  
 35 40 45  
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln  
 50 55 60  
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu  
 65 70 75 80  
 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro  
 85 90 95  
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe  
 100 105 110  
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg  
 115 120 125  
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly  
 130 135 140  
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys  
 145 150 155 160  
 Lys Gln Lys Asp Leu Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu  
 165 170 175  
 Phe Pro Asp Leu His Arg Thr Ile Val Ser Glu Arg Asp Val Tyr Leu  
 180 185 190  
 Thr Tyr Met Leu Arg Gln Ala Ala Arg Arg Leu Glu Leu Pro  
 195 200 205

<210> 4439  
 <211> 2121  
 <212> DNA  
 <213> Homo sapiens

<400> 4439

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120  
tctaaaatta acttttattg ttagagacac atcttttagaa aagtttgtaa atatcaacat  
180  
ttaccatctt attttttcct ttgagaccaa gcatcacaga ccaaaagcca caaagtttac  
240  
aataatttat tattgttgca tgacatttgc cagtaaaata aattatagaa actatagagt  
300  
ctttataaac tattttgtat atcatattca cttcctaatag cttactgcag taactgtatg  
360  
aaatttaatt agattacgtt ttagcattag tcagaagatt taaaaaatat gtaaaatgtt  
420  
ttcacagtac tttggattta taaaagaccc cattatttta acttttgtgc aacctgtttg  
480  
aatgtataa aaaacctttt acaaaccaaa aggtggcgta aggttttact gagttgctga  
540  
agacatctta ctttcttgaa tttctactta acatccatgt ggtgcacttt ttcaggcatt  
600  
gtaataagtg caaataaata atcaattatt gatttctaaa aatctatacc aatagacaat  
660  
actcaggctt ggaaatatat tgaacactca gatataaaaa ttcagtaaac aatttatgca  
720  
tggtattttc tctccctgtc ctccctctcc ctccctcctt cccctatcta tttggttaaa  
780  
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840  
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900  
gcatcaatcc tttcctgcag ggacggaaga gttttcaaat ccttgctgaa agcattttgt  
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1620

cagccagttc cagaacaacc actataccca caaccatacc aaccacaata ccaacaatat  
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 1740  
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 1860  
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 1920  
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 1980  
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<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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Leu	Arg	Phe	Ala	Phe	Ile	Asp	Val	Gly	Ile	Phe	Arg	Asn	Ser	Ala	Pro
			20					25					30		
Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
		35					40					45			
Arg	Ile	Gly	Arg	Phe	Gly	Tyr	Gly	Tyr	Gly	Pro	Tyr	Gln	Pro	Val	Pro
	50					55					60				
Glu	Gln	Pro	Leu	Tyr	Pro	Gln	Pro	Tyr	Gln	Pro	Gln	Tyr	Gln	Gln	Tyr
65					70					75					80
Thr	Phe														

<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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 180  
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 300



aaggagaagg tgctgtgggc cctgctggca gtgctcctgg cgtcgtggag gctgtgggag  
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gagagtgggtg tgagcgacag cttctttgag caagagcccg tggacacagt gagcagcttg  
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660  
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720  
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1080  
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1140  
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1380  
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1440  
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1560  
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1620  
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1680  
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1800  
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atcggggcac ccagggagg ctgaccccag ctcacctggc cctgccttcc ccctgcagct  
1920

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<210> 4442  
 <211> 517  
 <212> PRT  
 <213> Homo sapiens

<400> 4442  
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 35 40 45  
 Trp Arg Leu Trp Ala Ile Lys Asp Phe Gln Glu Cys Thr Trp Gln Val  
 50 55 60  
 Val Leu Asn Glu Phe Lys Arg Val Gly Glu Ser Gly Val Ser Asp Ser  
 65 70 75 80  
 Phe Phe Glu Gln Glu Pro Val Asp Thr Val Ser Ser Leu Phe His Met  
 85 90 95  
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 100 105 110  
 Tyr Tyr Leu Lys Ile Asn Tyr Ser Cys Glu Glu Lys Pro Ser Glu Asp  
 115 120 125  
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 130 135 140  
 Thr Phe Gln Ser Pro Val Asn Phe Tyr Arg Trp Lys Ile Glu Gln Leu  
 145 150 155 160  
 Gln Ile Gln Met Glu Ala Ala Pro Phe Arg Ser Lys Gly Gly Pro Gly  
 165 170 175  
 Gly Gly Gly Arg Asp Arg Asn Leu Ala Gly Met Asn Ile Asn Gly Phe  
 180 185 190  
 Leu Lys Arg Asp Arg Asp Asn Asn Ile Gln Phe Thr Val Gly Glu Glu  
 195 200 205  
 Leu Phe Asn Leu Met Pro Gln Tyr Phe Val Gly Val Ser Ser Arg Pro  
 210 215 220  
 Leu Trp His Thr Val Asp Gln Ser Pro Val Leu Ile Leu Gly Gly Ile  
 225 230 235 240  
 Pro Asn Glu Lys Tyr Val Leu Met Thr Asp Thr Ser Phe Lys Asp Phe  
 245 250 255  
 Ser Leu Val Glu Val Asn Gly Val Gly Gln Met Leu Ser Ile Asp Ser  
 260 265 270  
 Cys Trp Val Gly Ser Phe Tyr Cys Pro His Ser Gly Phe Thr Ala Thr  
 275 280 285  
 Ile Tyr Asp Thr Ile Ala Thr Glu Ser Thr Leu Phe Ile Arg Gln Asn  
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 Gln Leu Val Tyr Tyr Phe Thr Gly Thr Tyr Thr Thr Leu Tyr Glu Arg  
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 Asn Arg Gly Ser Gly Glu Cys Ala Val Ala Gly Pro Thr Pro Gly Glu

[illegible]

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<210> 4443
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<212> DNA
<213> Homo sapiens
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420
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ccttcgagac tgctctgaag agaaggaggg accttctgca gagactccgg gaacaacacc
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692

<210> 4444  
<211> 108  
<212> PRT  
<213> Homo sapiens

<400> 4444  
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20 25 30  
Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro  
35 40 45  
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val  
50 55 60  
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly  
65 70 75 80  
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln  
85 90 95  
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys  
100 105

<210> 4445  
<211> 901  
<212> DNA  
<213> Homo sapiens

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240  
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300  
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420  
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 a  
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<210> 4446  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 4446  
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 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro  
 35 40 45  
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu  
 50 55 60  
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu  
 65 70 75 80  
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly  
 85 90 95  
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met  
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 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His  
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 130 135 140

<210> 4447  
 <211> 951  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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			20					25					30		
Asp	Arg	Gly	Pro	Trp	Arg	Val	Gly	Val	Val	Gly	Tyr	Gly	Arg	Leu	Gly
		35					40					45			
Gln	Ser	Leu	Val	Ser	Arg	Leu	Leu	Ala	Gln	Gly	Ser	Glu	Leu	Gly	Leu
		50					55					60			
Glu	Leu	Val	Phe	Val	Trp	Asn	Arg	Asp	Pro	Gly	Arg	Met	Ala	Gly	Ser
65						70				75				80	
Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu	Arg
					85				90					95	
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His	Glu
			100					105					110		
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg	Val
		115					120					125			
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu	Ala
		130					135					140			
Ala	Ala	His	Ser	Pro	Gly	Pro	Cys	Thr	Val	Leu	Tyr	Glu	Gly	Pro	Val
145					150					155				160	
Arg	Gly	Leu	Cys	Pro	Phe	Ala	Pro	Arg	Asn	Ser	Asn	Thr	Met	Ala	Ala
				165					170					175	
Ala	Ala	Leu	Ala	Ala	Pro	Ser	Leu	Gly	Phe	Asp	Gly	Val	Ile	Gly	Val
			180					185					190		
Leu	Val	Ala	Asp	Thr	Ser	Leu	Thr	Asp	Met	His	Val	Val	Asp	Val	Glu
		195					200						205		
Leu	Ser	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Arg	Ser	Phe	Ala	Val	His	Thr
		210				215						220			
Arg	Arg	Glu	Asn	Pro	Ala	Glu	Pro	Gly	Ala	Val	Thr	Gly	Ser	Ala	Thr

225		230		235		240									
Val	Thr	Ala	Phe	Trp	Arg	Ser	Leu	Leu	Ala	Cys	Cys	Gln	Leu	Pro	Ser
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Arg	Pro	Gly	Ile	His	Leu	Cys									
				260											

&lt;210&gt; 4449

&lt;211&gt; 1365

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4449

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1200
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1260

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<210> 4450  
 <211> 194  
 <212> PRT  
 <213> Homo sapiens

<400> 4450  
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 Gly Pro Gln Asn Arg Tyr Ala Leu Ile Cys Gln Gln Cys Phe Ser His  
 35 40 45  
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys  
 50 55 60  
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala  
 65 70 75 80  
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly  
 85 90 95  
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp  
 100 105 110  
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn  
 115 120 125  
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln  
 130 135 140  
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu  
 145 150 155 160  
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 165 170 175  
 Gly Ala Asp Ser Ile Pro Asp Pro Glu Leu Ser Gly Glu Ser Leu Thr  
 180 185 190  
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<210> 4451  
 <211> 1637  
 <212> DNA  
 <213> Homo sapiens

<400> 4451  
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 1637

&lt;210&gt; 4452

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4452

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	20	25	30
Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Gly Pro Ile Met Thr			
	35	40	45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg			
	50	55	60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val			
65	70	75	80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr			
	85	90	95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu			
	100	105	110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala			
	115	120	125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp			
	130	135	140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu			
145	150	155	160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr			
	165	170	175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala			
	180	185	190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp			
	195	200	205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu			
	210	215	220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu			
225	230	235	240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly			
	245	250	255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn			
	260	265	270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly			
	275	280	285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val			
	290	295	300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln			
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Lys Gln Asp Lys Glu Lys Pro Glu			
	325		

&lt;210&gt; 4453

&lt;211&gt; 685

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4453

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<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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Gln	Lys	Trp	Ala	Ala	Gly	Ala	Lys	Ala	Tyr	Leu	Asn	Lys	Gly	Ser	Lys	35	40	45	
Gly	Pro	Leu	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Pro	Leu	Ser	Gln	Gln	Arg	50	55	60	
Gln	Asp	Cys	Gly	Pro	Leu	Cys	Phe	Leu	Asn	Arg	Ala	Gln	Gly	Ser	Gln	65	70	75	80
Gly	Met	Pro	Ser	Leu	Gln	His	Ser	Thr	Leu	Trp	Ser	Gln	Trp	Ser	Arg	85	90	95	
Arg	Ser	Ser	Leu	Lys	Tyr	Tyr	Tyr	Arg	Gly	Glu	Arg	Pro	Ile	Leu	Ala	100	105	110	
Met	Leu	Leu	Tyr	Leu	Pro	Arg	Pro	Lys	Thr	Val	Leu	Cys	Ser	Phe	Ser	115	120	125	
Cys	Ser	Glu	Ile	Arg	Ser	Gln	Asn	Ser	Arg	Arg	His	Ser	Phe	Gly	Lys	130	135	140	
Lys	Gly	His	Ala	Phe	Val	Leu	Tyr	Leu	Ile	Leu	Val	Ser	Glu	Ala	Leu	145	150	155	160
Ile	Pro	Val	Asp	Cys	Gly	Leu	Arg	Trp	Ser	Pro	Pro	Gln	Asp	Pro	Gln	165	170	175	
Leu	Gln	Arg	Gln	Arg	Arg	Met	Lys	Glu	Glu	Gln	Pro	Pro	Gln	Asp	Leu	180	185	190	
Leu	His	Trp	Glu	Pro	His	Pro	Thr	Phe	Ser	Val	Pro	Phe	Thr	Arg		195	200	205	

<210> 4455

<211> 882

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4455

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 60  
 ggattaagcc acagcccggg gaaccctcg accattccca tgaaggacca cgtatgccatc  
 120  
 aagctgttca ttgggcagat cccccgcaac ctggatgaga aggacctcaa gcccctcttc  
 180  
 gaggagtttg gcaaaatcta cgagcttacg gttctgaagg acaggttcac aggcattgcac  
 240  
 aaaggctgcg ccttcctcac ctactgcgag cgtgagtcag cgctgaaggc ccagagcgcg  
 300  
 ctgcacgagc agaagactct gcccgggatg aaccggccga tccagggtgaa gcctgaggac  
 360  
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 420  
 gtgggcatgc tcaacaagca acagtccgag gacgacgtgc gccgcctttt cgaggccttt  
 480  
 gggaacatcg aggagtgcac catcctgcgc gggcccgacg gcaacagcaa ggggtgcgcc  
 540  
 tttgtgaagt actcctccca cgccgaggcg caggccgcca tcaacgcgct acacggcagc  
 600  
 cagaccatgc cgggagcctc gtccagtctg gtggtcaagt tcgccgacac cgacaaggag  
 660  
 cgcacgatgc ggcgaatgca gcagatggct ggccagatgg gcatgttcaa ccccatggcc  
 720  
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 780  
 atggcatcag tcgcgcaggg cggctacctg aaccccatgg ctgccttcgc tgccgccag  
 840  
 atgcagcaga tggcggccct caacatgaat ggctggcgg cc  
 882

&lt;210&gt; 4456

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4456

Met Lys Asp His Asp Ala Ile Lys Leu Phe Ile Gly Gln Ile Pro Arg  
 1 5 10 15  
 Asn Leu Asp Glu Lys Asp Leu Lys Pro Leu Phe Glu Glu Phe Gly Lys  
 20 25 30  
 Ile Tyr Glu Leu Thr Val Leu Lys Asp Arg Phe Thr Gly Met His Lys  
 35 40 45  
 Gly Cys Ala Phe Leu Thr Tyr Cys Glu Arg Glu Ser Ala Leu Lys Ala  
 50 55 60  
 Gln Ser Ala Leu His Glu Gln Lys Thr Leu Pro Gly Met Asn Arg Pro  
 65 70 75 80  
 Ile Gln Val Lys Pro Ala Asp Ser Glu Ser Arg Gly Asp Ser Ser Cys  
 85 90 95  
 Leu Arg Gln Pro Pro Ser His Arg Lys Leu Phe Val Gly Met Leu Asn

[illegible]

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<210> 4457
<211> 1491
<212> DNA
<213> Homo sapiens
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120
tatgcgggga catcggggca cccagggagg gctgaccca gctcacctgg ccctgccttc
180
ccctgcagc tgggtgtacct tatgaacaac cagaagggcc agctgggtcaa gaggctcgtg
240
cccgtggagc agcttctgat gtatcaacag cacaccagcc actatgactt ggagcgga
300
gggggctact tgatgtctct cttcatcgac ttctgccct tctcgggtgat gcgcctgcgg
360
agcctgcccc gtccgcagag atacacgcgc caggagcgct accgggcgcg gccgcgcgcg
420
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480
tactacctgc tgtggctgca ctccgtgtac gacaaggatt actacttctt cttggcgagc
540
aattggcgaa gcgcgggcgg cgtgtccata gaaatggaca gctacgaaaa gatctaac
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660
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720
cgcgggacca gagtggagcc cgaagggcgg ggcgagggt accagaatct gggagcctgg
780

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ggggcgggga caccatcgga ggggcggggc ctgtctgtgg acgtgggcgt ggtgctggcc  
 840  
 gaccccggtt gcatcgagga ctcggtgaag caggaggtcc tgattaatcg caactcggtg  
 900  
 ctattttcga ttacgtcaa ggataaaaag ctttgctatg accaaggcat tagtggacat  
 960  
 caccttatgg agacttccat gacgggtcaat gtgaggtcca agcctggagg ggagggcaag  
 1020  
 cgcttggcct tcgacatcac ctacacgtg gaatacagcc gcctgaagaa caaacactac  
 1080  
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 1140  
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 1200  
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 1260  
 accacaagga ccaccaaaga ctcagccttt cacatcatgt cccacgagag cccaggcatc  
 1320  
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 1380  
 cctgaattct tcttcaaggt gttggtgagc aataggtgag ccaggcaagt ggcccagggtg  
 1440  
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 1491

&lt;210&gt; 4458

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4458

Met	Asn	Asn	Gln	Lys	Gly	Gln	Leu	Val	Lys	Arg	Leu	Val	Pro	Val	Glu
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Gln	Leu	Leu	Met	Tyr	Gln	Gln	His	Thr	Ser	His	Tyr	Asp	Leu	Glu	Arg
			20					25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
		35					40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50					55					60				
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65					70					75					80
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85						90					95	
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
			100					105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
		115					120					125			
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
		130				135					140				
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145					150					155					160
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
				165					170					175	
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

180							185					190				
Trp	Gly	Ala	Gly	Thr	Pro	Ser	Glu	Gly	Arg	Gly	Leu	Ser	Val	Asp	Val	
195							200					205				
Gly	Val	Val	Leu	Ala	Asp	Pro	Gly	Cys	Ile	Glu	Ala	Ser	Val	Lys	Gln	
210							215					220				
Glu	Val	Leu	Ile	Asn	Arg	Asn	Ser	Val	Leu	Phe	Ser	Ile	Thr	Leu	Lys	
225	230							235					240			
Asp	Lys	Lys	Leu	Cys	Tyr	Asp	Gln	Gly	Ile	Ser	Gly	His	His	Leu	Met	
245							250					255				
Glu	Thr	Ser	Met	Thr	Val	Asn	Val	Arg	Ser	Lys	Pro	Gly	Gly	Glu	Gly	
260							265					270				
Lys	Arg	Leu	Ala	Phe	Asp	Ile	Thr	Tyr	Thr	Leu	Glu	Tyr	Ser	Arg	Leu	
275							280					285				
Lys	Asn	Lys	His	Tyr	Phe	Asp	Cys	Val	Asn	Val	Asn	Pro	Glu	Met	Pro	
290							295					300				
Cys	Phe	Leu	Phe	Arg	Asp	Ser	Val	Tyr	Val	Leu	Leu	Val	Val	Gly	Gly	
305	310							315					320			
Gly	Pro	Thr	Leu	Asp	Ser	Leu	Lys	Asp	Tyr	Ser	Glu	Asp	Glu	Ile	Tyr	
325							330					335				
Arg	Phe	Asn	Ser	Pro	Leu	Asp	Lys	Thr	Asn	Ser	Leu	Ile	Trp	Thr	Thr	
340							345					350				
Arg	Thr	Thr	Arg	Thr	Thr	Lys	Asp	Ser	Ala	Phe	His	Ile	Met	Ser	His	
355							360					365				
Glu	Ser	Pro	Gly	Ile	Glu	Trp	Leu	Cys	Leu	Glu	Asn	Ala	Pro	Cys	Tyr	
370							375					380				
Asp	Asn	Val	Pro	Gln	Gly	Ile	Phe	Ala	Pro	Glu	Phe	Phe	Phe	Lys	Val	
385							390					395				
Leu	Val	Ser	Asn	Arg												
405																

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<210> 4459
<211> 1114
<212> DNA
<213> Homo sapiens
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<400> 4459
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120
gccgattgat ctaagaaact ttattgctca gaaccttccc tccctgggca atggaaagag
180
ctttggagac cagcccatgg ggacagagtc agaggcactg ggtgtaaaaa aagagcgagc
240
gtgtggcaca tttgggtccat tgtcatgtgt gggatatggca ggaggagggg gtaatctaga
300
agccccacat ctagggcctt ctagggaccc agatatgcc ccttaggcaa ggctcacatg
360
ccaaagcaaa gcagatgagg tcagcctggc ttgggttgag ggctcagtgc ctcttagcct
420
tgccctgggg ttcttggacc ttccgaaac tgagccacat caggctcacg ttgatagcat
480
aggtggtgat acaacaatg cagaaatcat agagcacgaa gaacaggatc caggccaggt
540

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agacagaacc agcgagagac accagggagc tcagcagcat caggacagag gccagcgtg  
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 660  
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 720  
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 780  
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 960  
 aatggccgcg cccctcctgg cctctgact cggcgattgg ccggccgtgc tcgcactcca  
 1020  
 cgacccaaat ggctgttcca gggcgctagt caagcgggcg agttaggaaa acagcgaaga  
 1080  
 atgccgggac tagtgaagcg ggtaagggac gtgc  
 1114

<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

Trp	Arg	Cys	Pro	Arg	Arg	Arg	Ala	Arg	Gly	Asn	Pro	Gly	Pro	Gly	Arg
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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro	Ser
			20					25					30		
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
		35					40					45			
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50					55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65					70				75					80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
				85				90						95	
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
			100					105						110	
Gly	Leu	Val	Lys	Arg	Val	Arg	Asp	Val							
		115					120								

<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 120



tacctggcag acttcccca ggaactgtcc atcaaataca tggccagatc gttccgtggg  
 180  
 gctgtggcta ttgtcacaga gacggaggag gtgggctgcc ccgcccttct cccattccc  
 240  
 tctctgccc ccccaaacc ccagggggccc ctctttcccc cgtcacagta aaggagccaa  
 300  
 gggaaggggg caccctcggg gaccctgaga aagggcagtg aagctccatt tataactgaa  
 360  
 actcctggaa ctcagggtaa gtgtcagctc caaagtcacg cagaccggag ctatgatccg  
 420  
 atgttcagag gcggccctct ttcattccac agtgtggctg ttcacttcat aaatattgag  
 480  
 catttaaa  
 488

<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

Thr	Glu	Ser	Tyr	Thr	Ser	Thr	Ala	Met	Ala	Pro	Lys	Gly	Ile	Phe	Cys
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Asn	Pro	Tyr	Asn	Asn	Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln
			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35					40					45			
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
	50					55					60				
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65					70					75				80	
Ser	Leu	Pro	Thr	Pro	Lys	Pro	Gln	Gly	Pro	Leu	Phe	Pro	Pro	Ser	Gln
				85					90					95	

<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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 120  
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 180  
 gatgacgcga gcggtgaggg aaccgcgaac aattccttca cagaacaatt gaggcgagggc  
 240  
 ctttgggagt actttgtggg acggaccctg gcgggcccctg ccagacgcac agggatggcg  
 300  
 gcggaggcgg ccgatttggg gctggggggc gccgtccccg tggagctgag gcgggagcga  
 360  
 cgcattggtg gcgtggagta cccgggagtg gtgcgtgatg tggctaagat gctgccgact  
 420

ctgggcggtg aggaaggcgt ctcccggatc tacgcagacc ccaccaagag gctggagctg  
480  
tacttccggc ccaaggaccc atactgccac ccagtgtgcg ccaaccgctt cagtaccagc  
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1980  
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2040

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 2100  
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 2160  
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 2220  
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 2520  
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 2580  
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 2662

<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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Glu	Leu	Arg	Arg	Glu	Arg	Arg	Met	Val	Cys	Val	Glu	Tyr	Pro	Gly	Val
		20						25					30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly
		35					40				45				
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
	50					55				60					
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65					70					75				80	
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys
			85					90						95	
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
		100						105					110		
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
		115					120					125			
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
	130					135					140				
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
145					150					155				160	
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
			165					170						175	
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
		180						185					190		
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

195	200	205
Arg Ala Arg Arg Pro His Asn Ala Ile Phe Val Asn Phe Glu Asp Glu		
210	215	220
Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg		
225	230	235
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys		240
	245	250
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn		255
	260	265
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala		270
	275	280
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly		285
	290	295
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp		300
305	310	315
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu		320
	325	330
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr		335
	340	345
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln		350
	355	360
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser		365
	370	375
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu		380
385	390	395
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu		400
	405	410
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys		415
	420	425
Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg		430
	435	440
Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro		445
	450	455
Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu		460
465	470	475
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu		480
	485	490
Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu		495
	500	505
Thr Glu Ile Leu Asp Tyr Val		510
515		

&lt;210&gt; 4465

&lt;211&gt; 1291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4465

gggctggagc gccagggttcg ggccgagatc gagcacaaga aggaggagct gcggcagatg  
60

gtgggccaac ggtaccgcga cctgatcgag gcgnccgaca ccatcgcca gatgcgcgt  
120

ngcgccgtgg ggctagtga cgcctgaag gccaccgacc agtactgcgc ccgcctccgc  
180

caggccggct cggccgcgcc cgggccaccg cgggccagc agccacagca gccatccaa  
 240  
 gagaagttct acagcatggc tgccagatca agctactctt agaaattccg gagaagatct  
 300  
 ggagctcgat ggaagcctct cagtgtctcc acgccacacn agctctacct gctctgctgc  
 360  
 cacctccaca gcctgctcca gctggattct tctagttccc gatacagtcc cgctctctcc  
 420  
 cggtttctta tactcatccg gcagggtggcg gccgccagcc acttcgggtc aactattctg  
 480  
 catgaaagca agatgttgct caaatgccaa ggtgtgtctg accaagctgt ggccgaggcc  
 540  
 ctgtgctcta taatgctctt agaagagagt tctctctgcc aagccctcac agacttctg  
 600  
 ctggccagaa aggcaactat tcagaaaactt ctcaaccagc cacaccatgg tgctggtatc  
 660  
 aaggctcaga tttgctcatt agtggagttg ctggccacca ctctgaagca agctcatgcc  
 720  
 cttttctaca ctttgccaga aggactgctg ccagatccag ccctgccatg tggcttgctc  
 780  
 ttctctactc tggagaccat cacaggccag catcctgccg gaaagggcac tgggtgtctg  
 840  
 caggaagaga tgaaactctg cagctggttt aaacacctgc cagcatccat cgtcgagttc  
 900  
 cagccaacac tccgaaccct tgcacatccc atcagtcagg aatacctgaa agacacgctg  
 960  
 cagaaatgga tccacatgtg taatgaagac attaaaaatg ggatcaccaa cctgctcatg  
 1020  
 tacgtgaaga gcatgaaggg tctcgcggga atccgggacg ccatgtggga gttacttacc  
 1080  
 agtgagtcca ccaatcacag ctgggatgtg ctatgtaccc gcnttctgga gaagccgctc  
 1140  
 ttgttctggg aagatatgat gcagcaactg ttccttgacc gattacagac tctgacaaaa  
 1200  
 gaaggctttg actccatctc cagtagtncc aaggagctct tggtttcang tttgcaggaa  
 1260  
 cttgaaagca gcaccagcaa ctcccacttc a  
 1291

&lt;210&gt; 4466

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4466

Gly	Leu	Glu	Arg	Gln	Val	Arg	Ala	Glu	Ile	Glu	His	Lys	Lys	Glu	Glu
1				5				10						15	
Leu	Arg	Gln	Met	Val	Gly	Glu	Arg	Tyr	Arg	Asp	Leu	Ile	Glu	Ala	Xaa
		20						25					30		
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
		35					40					45			
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
	50					55					60				
Ala	Ala	Pro	Arg	Pro	Pro	Arg	Ala	Gln	Gln	Pro	Gln	Gln	Pro	Ser	Gln



<213> Homo sapiens

<400> 4468

```

Xaa Asp Val Pro Lys Val Glu Val Leu Glu Arg Glu Leu Ala Trp Leu
 1           5           10           15
Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
           20           25           30
Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
           35           40           45
Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
           50           55           60
Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
65           70           75           80
Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
           85           90           95
Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
           100          105          110
Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
           115          120          125
Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
           130          135          140
Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
145          150          155          160
Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
           165          170

```

<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

```

atctatgatg cacaacatgc caatttggtg ggcacgctga gcggccatgc ctctgggtg
60
ctgaacgttg cattctgtcc tgatgacact cactttgttt ccagatccca gtgttggtca
120
ggcctgggat ggccaagaca gttggaaagc aggagatgga caacttgaag gcattgcaca
180
gtgctttaga ggcctcctgc gagccttggt tttgaagctt taacaggcct ccctcccatc
240
tggaatatagg tagctgtgtc tgagactcct ggagaacaat taatatgagg gccaggcaga
300
tcacaatttc aggaaaatgg ctaccctgtg aggagagaaa gccaccaat gatgctgata
360
cctggccatt tcctgtaccg aggcattgng ttgggggggtc tgaagttag
409

```

<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

```

Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

```

1	5	10	15
Ala Ser Trp Val Leu Asn Val Ala Phe Cys Pro Asp Asp Thr His Phe			
	20	25	30
Val Ser Arg Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu			
	35	40	45
Glu Ser Arg Arg Trp Thr Thr			
50	55		

&lt;210&gt; 4471

&lt;211&gt; 1771

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4471

```

ctgggccccca atcaccacgc tgtgctcccc acaccgcaa ggctccccct cctcagcctt
60
agtttctctt tctggaaatt ggggaatctt catgtcacct tcttgacagc atttgccagg
120
catccagcag gcgcttaata aatggccaag tcattgtttg ggtttctaaa taaggctctc
180
ctaattggccg ggtctggcca cggctccagc gtccctgggc agccctccga ggggcccggca
240
cagggcgcac tataaatgag cggctgcgca cgcaggggca ctgcaacgcg gaggagcagg
300
atggagatcc ctgtgcctgt gcagccgtct tggctgcgcc gcgcctcggc cccgttgccc
360
ggactttcgg cgcccggacg cctctttgac cagcgcttcg gcgaggggct gctggaggcc
420
gagctggctg cgctctgccc caccacgctc gccccctact acctgcgcgc acccagcgtg
480
gcgctgcccg tcgcccaggt gccgacggac cccggccact ttctgggtgct gctagacgtg
540
aagcattctt cgccggagga aattgctgtc aagggtggtg gcgaacacgt ggaggtgcac
600
gcgcgccacg aggagcgcgc ggatgagcac ggattcgtcg gcgcgcagtt ccaccgtcgc
660
taccgcctgc cgcttggcgt ggatccggct gccgtgacgt ccgcgctgtc ccccgagggc
720
gtcctgtcca tccaggccgc accagcgtcg gccaggccc caccgccagc cgcagccaag
780
taggaggggg ctgggccgcg cccgcacccc gggagcctcc tcaggctccc tctattaaag
840
ccgatctgac tccgccagc cagatgtccc gagtgcgcca aggactgtcc tctcaccac
900
tcctggattc tgcctgacc tccatcctgg aactgcctt gataacatag acccttcac
960
tgacaccctc gctctcacac cccctccagc ttcccgaccc cacaccgaca actccccggc
1020
ttccagaccc taccagcact accctaacct tcagccgaca gtctcagccc caccgaccca
1080
ctttcttggc atatagcccc acttaagacc cctcctctac ttccttctga gtctctaca
1140
aagacatccg ggtactacat ttccatccct tccctatctt gacaccaaat tatgggtgtag
1200

```



acagccctcc cccaaccca ggccagtcag gcacaatccc cccaccccc aaacgtcctg  
 1260  
 gactgcacag acctcccaact cdagaccatc caggcctggt tcccaagacc cgatccttcc  
 1320  
 cctgcaacca gacagtctac aactgcccc tccagcccat tttctgccgt gaaaccccag  
 1380  
 ccagccacac cagactctgg aacccttttt cgactgcccc aactcttggg caccaggcca  
 1440  
 actagaacac ccaacaccaa actgtacaga ctctcccacc ccaacctccc cagactctgc  
 1500  
 acggatgtcc taggccccct cccaactct aaccagaccc catcccccta agtccctttg  
 1560  
 tcttgacccc caagtcttca accagatatc ctcggaacc cacctcccac cctcctcctc  
 1620  
 ttctccttca agaccaact gagcacccgc tctgattccc cacagccttt ctccttgcca  
 1680  
 ccactccctt agtctttccc aggcttactc tcccaataaa tgtgctagag ctctgccaaa  
 1740  
 aaaagaaaaa aaagtcgacg cggccggaat t  
 1771

&lt;210&gt; 4472

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4472

Met	Glu	Ile	Pro	Val	Pro	Val	Gln	Pro	Ser	Trp	Leu	Arg	Arg	Ala	Ser
1				5				10						15	
Ala	Pro	Leu	Pro	Gly	Leu	Ser	Ala	Pro	Gly	Arg	Leu	Phe	Asp	Gln	Arg
			20					25					30		
Phe	Gly	Glu	Gly	Leu	Leu	Glu	Ala	Glu	Leu	Ala	Ala	Leu	Cys	Pro	Thr
		35					40					45			
Thr	Leu	Ala	Pro	Tyr	Tyr	Leu	Arg	Ala	Pro	Ser	Val	Ala	Leu	Pro	Val
	50					55					60				
Ala	Gln	Val	Pro	Thr	Asp	Pro	Gly	His	Phe	Ser	Val	Leu	Leu	Asp	Val
65					70					75				80	
Lys	His	Phe	Ser	Pro	Glu	Glu	Ile	Ala	Val	Lys	Val	Val	Gly	Glu	His
				85					90					95	
Val	Glu	Val	His	Ala	Arg	His	Glu	Glu	Arg	Pro	Asp	Glu	His	Gly	Phe
			100					105					110		
Val	Ala	Arg	Glu	Phe	His	Arg	Arg	Tyr	Arg	Leu	Pro	Pro	Gly	Val	Asp
		115					120					125			
Pro	Ala	Ala	Val	Thr	Ser	Ala	Leu	Ser	Pro	Glu	Gly	Val	Leu	Ser	Ile
	130					135					140				
Gln	Ala	Ala	Pro	Ala	Ser	Ala	Gln	Ala	Pro	Pro	Pro	Ala	Ala	Ala	Lys
145					150					155					160

&lt;210&gt; 4473

&lt;211&gt; 1255

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4473

gccggcgcga tgccccgccc cttcgatagc tcctctttgc gcgccgcagt cgcgcggagc  
 60  
 ccggcttccg acgtgcagcc tggcagtgca gtgagctgtc tggccttttg tccttgatcc  
 120  
 ttggttaagg aaatgaccaa ccagtacggg attctcttca aacaagagca agcccatgat  
 180  
 gatgccattt ggtcagttgc ttgggggaca aacaagaagg aaaactctga gacagtggtc  
 240  
 acaggctccc tagatgacct ggtgaagggtc tggaaatggc gtgatgagag gctggaccta  
 300  
 cagtggagtc tggagggaca tcagctggga gtggtgtctg tggacatcag ccacaccctt  
 360  
 cccattgctg cctccagttc tctagatgct catattcgac tctgggactt ggaaaatggc  
 420  
 aaacagatga agtctataga tgcaggaccg gtggatgcct ggactttggc attctctccg  
 480  
 gactcccagc atctggcaac aggaactcac atggggaaag tgaacatttt tgggtgtggaa  
 540  
 agtggaaaaa aagaatactc tttggacact agaggaaaat tcatccttag tattgcatat  
 600  
 agtcctgatg gaaaatacct ggccagcggg gccatagatg gaatcatcaa ttttttgat  
 660  
 attgcaactg gaaaacttct gcataccctg gaaggccatg ccatgcccac tcgctccttg  
 720  
 accttttccc cggactccca gctccttgct actgcttcag atgatggcta catcaagatc  
 780  
 tatgatgtac aacatgccaa tttggctggc acgctgagcg gccatgcctc ctgggtgctg  
 840  
 aacgttgcac tctgtcctga tgacactcac tttgtttcca gttcgtctga caaaagtgtg  
 900  
 aaagtttggg atgttgggaa gaggacttgt gttcacacct tctttgatca ccaggatcag  
 960  
 gtctggggag taaaatacaa tggaaatggt tcaaaaattg tgtctgttgg agatgaccag  
 1020  
 gaaattcaca tctatgattg tccaatttaa acatcaaagt ctccaggctt atgctgcaaa  
 1080  
 gagaatgtac ggattgatca tgacattcct taccttctta ggcttggtta aaagaaatat  
 1140  
 agcatttatt gtagcaaaga cttaaatttt gtagatacaa tatgaatctt ttcattgttt  
 1200  
 attggaaatg ctgttcatac tttaacataa agctttctta atgcaaaaaa aaaaa  
 1255

&lt;210&gt; 4474

&lt;211&gt; 305

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4474

Met	Thr	Asn	Gln	Tyr	Gly	Ile	Leu	Phe	Lys	Gln	Glu	Gln	Ala	His	Asp
1				5					10					15	
Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
			20					25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

35 40 45  
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln  
 50 55 60  
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala  
 65 70 75 80  
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly  
 85 90 95  
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu  
 100 105 110  
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly  
 115 120 125  
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu  
 130 135 140  
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly  
 145 150 155 160  
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp  
 165 170 175  
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro  
 180 185 190  
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala  
 195 200 205  
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu  
 210 215 220  
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe  
 225 230 235 240  
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val  
 245 250 255  
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp  
 260 265 270  
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys  
 275 280 285  
 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro  
 290 295 300  
 Ile  
 305

&lt;210&gt; 4475

&lt;211&gt; 475

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4475

acgcgtgaac ccgtgagctt gggaggggat atcgtccaag cgagggtctct ctgateccgc  
 60  
 tgggtgtccag actccttctg gagttccaat cccaccctg gcacactgtc catctctggc  
 120  
 tggctctgtcg tgaagctgga gagccgtgca aggcgacaga gccttctgtg tggcccgtec  
 180  
 tggcgctctg gggcaagggc tgacttgagc tgcttctgtc gctcatctgc tgtctgccag  
 240  
 ctgccctcag acctcctcct ggggtgcagcc cgttcccact tgagagggag gtggtcttca  
 300  
 ctttaggggg taggcacatc cctgtttgag ccttgccccg acagcctcgt caatgccag  
 360

ccacttctga gggctggagg gacaggaact tcctttcttc cccctttctg tctcctcgcg  
 420  
 tgggtacaaa agcacgtctg tagtccatgt gtgtgaagag aggacgcatt ctaga  
 475

<210> 4476

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4476

Met	Cys	Leu	Pro	Pro	Lys	Val	Lys	Thr	Thr	Ser	Leu	Ser	Ser	Gly	Asn
1				5					10					15	
Gly	Leu	His	Pro	Gly	Gly	Gly	Leu	Arg	Ala	Ala	Gly	Arg	Gln	Gln	Met
			20					25					30		
Ser	Arg	Arg	Ser	Ser	Ser	Ser	Gln	Pro	Leu	Pro	Gln	Ser	Ala	Arg	Thr
		35					40					45			
Gly	His	Thr	Glu	Gly	Ser	Val	Ala	Leu	His	Gly	Ser	Pro	Ala	Ser	Arg
	50					55				60					
Gln	Thr	Ser	Gln	Arg	Trp	Thr	Val	Cys	Gln	Gly	Trp	Asp	Trp	Asn	Ser
65					70					75				80	
Arg	Arg	Ser	Leu	Asp	Thr	Ser	Gly	Ile	Arg	Glu	Thr	Ser	Leu	Gly	Arg
			85						90					95	
Tyr	Pro	Leu	Pro	Ser	Ser	Arg	Val	His	Ala						
			100					105							

<210> 4477

<211> 1153

<212> DNA

<213> Homo sapiens

<400> 4477

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 tccatgtggt agagtgtcag tttgtcaaat accccaagtg cggcacatgc ttaccagctc  
 120  
 taggccaggg cagatgggat atgacgaatg gactgccagc tggatacaag gatgctcacc  
 180  
 aagcaccaag ttctcacaag ttattttatg tgactttgca ggaactgagg cattatatct  
 240  
 gaggacacca ggggaaaagt gtggcatctc agggaaatac agccctgggc tgtgtctaca  
 300  
 cacaccatga gagtgtgat gggggcgcaa tagtcttgaa aatgtataaa gtgtccagga  
 360  
 atggaagtgc tctttgattc attattatct tcttccttca tattcccttc ccagagtctc  
 420  
 ctatctagga catcagcatt ctacacaaag cctaattggct tatctgagta agcagggctt  
 480  
 agaaattcac tttcttgata ctcagtcttg ccttctaacc actccttgat cttgcctacc  
 540  
 tctccctttt tccacatgtc ttttcctgta ggaacacttt ctccatttat tctgcctat  
 600  
 ccaattcttc cctatatttc ctggaccagc taaagtccag tgtttccaga gacttttgaa  
 660

agtcaactta cactttttcc ttcttcattc acaaagctct tcttccttgg gccctgggtat  
 720  
 gtatgccttt ctctcctact gtctaatagc acctcgtaaa ttgtcaatga actttttctaa  
 780  
 ggggtattct tgaattccca actagattgt gagcttcttg aagacaaggc tatgtctttg  
 840  
 attgttgtct cccctaccac agcccagtag tttagttaca gaaaataata aatattttact  
 900  
 gattgattga ctttcctctt gtccactagc tttaggtttg ggggccaaat tctaccctgg  
 960  
 attttgaaaa attcaaactg tgaacaccac aatgttatag agcatatgag gtagtagcca  
 1020  
 gcatgaagga tgttttcttc ctgagaaaca gtgtcaaggg ctggaggaag agggcaaaat  
 1080  
 agcagactca gagggcaaat aaattttggt attacttggt cacacaaggt tatacaggtg  
 1140  
 ttttcttgta gga  
 1153

&lt;210&gt; 4478

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4478

Met	Trp	Lys	Arg	Gly	Glu	Val	Gly	Lys	Ile	Lys	Glu	Cys	Leu	Glu	Gly
1				5				10					15		
Lys	Thr	Glu	Tyr	Gln	Glu	Ser	Glu	Phe	Leu	Ser	Pro	Ala	Tyr	Ser	Asp
			20					25					30		
Lys	Pro	Leu	Gly	Leu	Cys	Glu	Asn	Ala	Asp	Val	Leu	Asp	Arg	Arg	Leu
		35					40					45			
Trp	Glu	Gly	Asn	Met	Lys	Glu	Glu	Asn	Asn	Asn	Glu	Ser	Lys	Ser	Thr
		50				55					60				
Ser	Ile	Pro	Gly	His	Phe	Ile	His	Phe	Gln	Asp	Tyr	Cys	Ala	Pro	Ile
65				70					75					80	
Ser	Thr	Leu	Met	Val	Cys	Val	Asp	Thr	Ala	Gln	Gly	Cys	Ile	Ser	Leu
				85				90					95		
Arg	Cys	His	Thr	Phe	Pro	Leu	Val	Ser	Ser	Asp	Ile	Met	Pro	Gln	Phe
			100					105					110		
Leu	Gln	Ser	His	Ile	Lys										
			115												

&lt;210&gt; 4479

&lt;211&gt; 2158

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4479

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 60  
 cgcgggcccc gcttttcgcg accctgctcc ggcctcgact acggcgagcc tgagcgcggc  
 120  
 ggcggcccac gcgcagcaca gggagagatg agcagcacca gcagtaagag ggctccgacc  
 180

acggcaaccc agaggctgaa gcaggactac cttcgcatta agaaagaccc ggtgccttac  
240  
atctgtgccg agcccctccc ttcgaatatt ctcgagtggc actatgtcgt ccgaggccca  
300  
gagatgaccc cttatgaagg tggctattac catggaaaac taatttttcc cagagaattt  
360  
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420  
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480  
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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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			20					25					30		
Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly
		35					40					45			
Glu	Met	Ser	Ser	Thr	Ser	Ser	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Thr	Gln
	50					55				60					
Arg	Leu	Lys	Gln	Asp	Tyr	Leu	Arg	Ile	Lys	Lys	Asp	Pro	Val	Pro	Tyr
65				70					75					80	
Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val
			85					90					95		
Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly
			100					105					110		
Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr
		115					120					125			
Met	Ile	Thr	Pro	Asn	Gly	Arg	Phe	Lys	Cys	Asn	Thr	Arg	Leu	Cys	Leu
		130				135					140				
Ser	Ile	Thr	Asp	Phe	His	Pro	Asp	Thr	Trp	Asn	Pro	Ala	Trp	Ser	Val
145					150					155				160	
Ser	Thr	Ile	Leu	Thr	Gly	Leu	Leu	Ser	Phe	Met	Val	Glu	Lys	Gly	Pro
			165					170						175	
Thr	Leu	Gly	Ser	Ile	Glu	Thr	Ser	Asp	Phe	Thr	Lys	Arg	Gln	Leu	Ala
			180					185					190		
Val	Gln	Ser	Leu	Ala	Phe	Asn	Leu	Lys	Asp	Lys	Val	Phe	Cys	Glu	Leu
		195					200					205			
Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp
		210				215						220			
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro
225					230					235				240	
Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly
			245					250						255	
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn
			260				265						270		
Arg	His	His	Gly	Leu	Leu	Gly	Gly	Ala	Leu	Ala	Asn	Leu	Phe	Val	Ile

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Ile Ala Gln Glu
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<210> 4481
<211> 320
<212> DNA
<213> Homo sapiens
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320
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<210> 4482
<211> 101
<212> PRT
<213> Homo sapiens
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<400> 4482
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Trp Gly Leu Gly Thr Ser Cys Cys Ala Ala Arg Lys Gln Asp Ser Ala
          20          25          30
Cys Pro Pro Thr Trp Gly Gly Asp Pro Gly Leu Gly Phe Val Gly Ala
          35          40          45
Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
          50          55          60
Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
65          70          75          80
Leu Pro Leu Pro Leu Cys Ala Ser Leu Asp Ser Pro Arg Glu Phe Ser
          85          90          95
Arg Met Gly Thr Gln
          100

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<210> 4483
<211> 1852
<212> DNA
<213> Homo sapiens
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180  
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240  
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300  
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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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			20					25					30		
Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe
		35				40					45				
Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys
	50				55					60					
Ala	Glu	Phe	Lys	Met	Lys	Met	Lys	Pro	Asp	Ile	Val	Cys	Ile	Pro	Asp
65					70				75					80	
Asp	Ala	Asp	Met	Gly	Thr	Ala	Asp	Ser	Leu	Arg	Tyr	Ile	Tyr	Pro	Lys
			85					90						95	
Leu	Lys	Thr	Asp	Val	Leu	Val	Leu	Ser	Cys	Asp	Leu	Ile	Thr	Asp	Val
			100					105					110		
Ala	Leu	His	Glu	Val	Val	Asp	Leu	Phe	Arg	Ala	Tyr	Asp	Ala	Ser	Leu
		115				120						125			
Ala	Met	Leu	Met	Arg	Lys	Gly	Gln	Asp	Ser	Ile	Glu	Pro	Val	Pro	Gly
	130					135					140				
Gln	Lys	Gly	Lys	Lys	Lys	Ala	Val	Glu	Gln	Arg	Asp	Phe	Ile	Gly	Val
145					150					155				160	
Asp	Ser	Thr	Gly	Lys	Arg	Leu	Leu	Phe	Met	Ala	Asn	Glu	Ala	Asp	Leu
			165					170						175	
Asp	Glu	Glu	Leu	Val	Ile	Lys	Gly	Ser	Ile	Leu	Gln	Lys	His	Pro	Arg
		180						185					190		
Ile	Arg	Phe	His	Thr	Gly	Leu	Val	Asp	Ala	His	Leu	Tyr	Cys	Leu	Lys
		195				200						205			
Lys	Tyr	Ile	Val	Asp	Phe	Leu	Met	Glu	Asn	Gly	Ser	Ile	Thr	Ser	Ile
	210					215					220				
Arg	Ser	Glu	Leu	Ile	Pro	Tyr	Leu	Val	Arg	Lys	Gln	Phe	Ser	Ser	Ala
225					230					235				240	
Ser	Ser	Gln	Gln	Gly	Gln	Glu	Glu	Lys	Glu	Glu	Asp	Leu	Lys	Lys	Lys
			245					250					255		
Glu	Leu	Lys	Ser	Leu	Asp	Ile	Tyr	Ser	Phe	Ile	Lys	Glu	Ala	Asn	Thr
		260						265					270		
Leu	Asn	Leu	Ala	Pro	Tyr	Asp	Ala	Cys	Trp	Asn	Ala	Cys	Arg	Gly	Asp
	275						280					285			
Arg	Trp	Glu	Asp	Leu	Ser	Arg	Ser	Gln	Val	Arg	Cys	Tyr	Val	His	Ile
	290					295					300				
Met	Lys	Glu	Gly	Leu	Cys	Ser	Arg	Val	Ser	Thr	Leu	Gly	Leu	Tyr	Met
305					310					315				320	
Glu	Ala	Asn	Arg	Gln	Val	Pro	Lys	Leu	Leu	Ser	Ala	Leu	Cys	Pro	Glu

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          325          330          335
Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
          340          345          350
Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
          420          425          430
Glu Ala Lys Ala Lys Arg Val Asn Glu Val Ile Val Gly Asn Asp Gln
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Leu Met Glu Ile
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&lt;210&gt; 4485

&lt;211&gt; 513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4485

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513

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&lt;210&gt; 4486

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4486

```

Met Gly Ser Gly Ile Pro His Pro His Pro Lys Cys Val Leu Pro Gln
 1           5           10          15
Pro Phe Val Phe Arg Pro Thr Gly Leu Ile Ala Pro Cys Ala Cys Pro
          20          25          30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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```

          35          40          45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
          50          55          60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65          70          75          80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
          85          90          95
Pro Met Pro Asn
          100

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<210> 4487  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

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<400> 4487
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120
ggaaagtttg atattttatt caatagagtt caagcaattc agaagaaaag tggaaacttt
180
gatctgctgt tgtgtgtagg aaatttcttt ggctccaccc aagatgctga atgggaggag
240
tataagactg gcatcaagaa agctcctatt cagacatatg tgcttggtgc taataaccag
300
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387

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<210> 4488  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

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<400> 4488
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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
20          25          30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
35          40          45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
50          55          60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65          70          75          80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
85          90          95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
100          105          110
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
115          120          125
Gly

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<210> 4489  
<211> 2390  
<212> DNA  
<213> Homo sapiens

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120  
gagccagggtg cctatatctt tctccagaac cccccaggtc tgcctagcat tgctgtctgc  
180  
tggttcgtgg gctgcctttg tggaagcaag ctcgtcattg actggcacia ctatggctac  
240  
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420  
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&lt;210&gt; 4490

&lt;211&gt; 383

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4490

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Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
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Gln	Asn	Pro	Pro	Gly	Leu	Pro	Ser	Ile	Ala	Val	Cys	Trp	Phe	Val	Gly
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Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
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Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
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Pro Leu Asp Leu Gln His Arg Leu Phe Met Lys Leu Gly Ser Met His
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Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu Asp Pro Val Thr Glu Arg
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Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser Gly Leu Val Thr Arg Leu
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Arg Glu Arg Pro Ala Leu Leu Val Ser Ser Thr Ser Trp Thr Glu Asp
      195      200      205
Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu Glu Lys Phe Glu Gln Leu
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Thr Leu Asp Gly His Asn Leu Pro Ser Leu Val Cys Val Ile Thr Gly
      225      230      235      240
Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg Leu Ile His Gln Lys His
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Phe Gln His Ile Gln Val Cys Thr Pro Trp Leu Glu Ala Glu Asp Tyr
      260      265      270
Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly Val Cys Leu His Thr Ser
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Ser Ser Gly Leu Asp Leu Pro Met Lys Val Val Asp Met Phe Gly Cys
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Lys His Glu Glu Asn Gly Leu Val Phe Glu Asp Ser Glu Glu Leu Ala
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Ala Gln Leu Gln Met Leu Phe Ser Asn Phe Pro Asp Pro Ala Gly Lys
      340      345      350
Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu Ser Gln Gln Leu Arg Trp
      355      360      365
Asp Glu Ser Trp Val Gln Thr Val Leu Pro Leu Val Met Asp Thr
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&lt;210&gt; 4491

&lt;211&gt; 6712

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4491

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6712

&lt;210&gt; 4492

&lt;211&gt; 674

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4492

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 Lys Thr Asp Asn Arg Pro Glu Lys Ser Lys Cys Lys Pro Leu Trp Gly  
 35 40 45  
 Lys Val Phe Tyr Leu Asp Leu Pro Ser Val Thr Ile Ser Glu Lys Leu  
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 Gln Lys Asp Ile Lys Asp Leu Gly Gly Arg Val Glu Glu Phe Leu Ser  
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 Lys Asp Ile Ser Tyr Leu Ile Ser Asn Lys Lys Glu Ala Lys Phe Ala  
 85 90 95  
 Gln Thr Leu Gly Arg Ile Ser Pro Val Pro Ser Pro Glu Ser Ala Tyr  
 100 105 110  
 Thr Ala Glu Thr Thr Ser Pro His Pro Ser His Asp Gly Ser Ser Phe  
 115 120 125  
 Lys Ser Pro Asp Thr Val Cys Leu Ser Arg Gly Lys Leu Leu Val Glu  
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 275 280 285  
 Glu Lys Lys Lys Lys Gly Tyr Cys Glu Cys Cys Leu Gln Lys Tyr Glu  
 290 295 300  
 Asp Leu Glu Thr His Leu Leu Ser Glu Gln His Arg Asn Phe Ala Gln  
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 340 345 350  
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 355 360 365  
 Thr Glu Gln Lys Glu Lys Val Glu Leu Gln His Ile Ser Gln Lys Asp  
 370 375 380  
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 Glu Thr Gln Glu Thr Glu Lys Lys Leu Leu Phe Ile Ser Glu Pro Ile

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 Phe Pro Ala Lys Asp Leu Lys Glu Lys Asp Leu His Ser Ile Phe Thr  
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&lt;210&gt; 4493

&lt;211&gt; 1829

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4493

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1829

&lt;210&gt; 4494

&lt;211&gt; 111

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4494

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<210> 4495

<211> 3623

<212> DNA

<213> Homo sapiens

<400> 4495

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&lt;210&gt; 4496

&lt;211&gt; 560

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4496

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&lt;210&gt; 4497

&lt;211&gt; 840

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4497

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&lt;210&gt; 4498

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4498

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Pro	Arg	Glu	Arg	Pro	Gln
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Ser	Phe	Ala	Gln	Asn	Gly
145				150	
Gln	Ala	Leu	Lys	Leu	Asn
				165	
Ser	Phe	Cys	His	Glu	Arg
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Ala	Gln	Val	Ala	Leu	Thr
				195	
Arg	Leu	Gly	Lys	Ala	Leu
				210	
Ala	Val	Phe	Gln	Glu	Thr
225				230	
Arg	Glu	Leu	Arg	Ser	Cys
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Gly	Gly	Ile	Cys	Ala	Pro
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Pro	His	Ala	Glu	Leu	Ala
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&lt;210&gt; 4499

&lt;211&gt; 562

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4499

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<212> PRT  
<213> Homo sapiens

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Ser Leu Cys Gly Asp Trp Leu Gln Gly Leu His Arg Phe Val Ala Arg  
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Gln Asn His Pro Met Val Leu Pro Ile Cys Arg  
85 90

<210> 4501  
<211> 1866  
<212> DNA  
<213> Homo sapiens

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120  
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 1860  
 gtgttt  
 1866

&lt;210&gt; 4502

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4502

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			20						25				30		
Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
			35						40				45		
Ala	Ala	Pro	Gly	Gln	Arg	Leu	Pro	Glu	Ser	Leu	Arg	Ala	Thr	Tyr	Arg
			50						55				60		
Glu	Gly	Phe	Tyr	Asn	Glu	Tyr	Met	Gln	Arg	Val	Phe	Lys	Tyr	Leu	Gly

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Glu	Gln	Gly	Val	Arg	Pro	Arg	Asp	Leu	Ser	Ala	Ile	Tyr	Glu	Ala	Ile
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Pro	Leu	Ser	Pro	Gly	Met	Ser	Asp	Leu	Leu	Gln	Phe	Val	Ala	Lys	Gln
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Gly	Ala	Cys	Phe	Glu	Val	Ile	Leu	Ile	Ser	Asp	Ala	Asn	Thr	Phe	Gly
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Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly
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Val	His	Phe	Glu	Arg	Leu	Phe	Tyr	Val	Gly	Asp	Gly	Ala	Asn	Asp	Phe
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Cys	Pro	Met	Gly	Leu	Leu	Ala	Gly	Gly	Asp	Val	Ala	Phe	Pro	Arg	Arg
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&lt;210&gt; 4503

&lt;211&gt; 1983

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4503

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 1980  
 gtg  
 1983

&lt;210&gt; 4504

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4504Ser Gly Lys Asp Arg Ile Glu Ile Phe Pro Ser Arg Met Ala Gln

1

5

10

15



Thr Ile Met Lys Ala Arg Leu Lys Gly Ala Gln Thr Gly Arg Asn Leu  
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 Lys Lys Ile Ile Glu Thr Lys Met Leu Met Gly Glu Val Met Arg Glu  
 50 55 60  
 Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser  
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 85 90 95  
 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr  
 100 105 110  
 His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly  
 115 120 125  
 Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu  
 130 135 140  
 Leu Val Glu Leu Ala Ser Leu Gln Thr Ser Phe Val Thr Leu Asp Glu  
 145 150 155 160  
 Ala Ile Lys Ile Thr Asn Arg Arg Val Asn Ala Ile Glu His Gly Glu  
 165 170 175  
 Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr  
 180 185 190  
 Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile  
 195 200 205  
 Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu  
 210 215 220  
 Gln Arg Arg Ala Ala Gly Glu Val Leu Glu Pro Ala Asn Leu Leu Ala  
 225 230 235 240  
 Glu Glu Lys Asp Glu Asp Leu Leu Phe Glu  
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&lt;210&gt; 4505

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4505

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 gattcactaa tcaagatct  
 379

&lt;210&gt; 4506

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4506

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Met Pro Gly Gly Glu Pro Arg Leu Lys Met Leu Pro Thr Pro Val Pro
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Gly Ser Leu Glu His Val Leu Gln Ser Asn Gln Arg Gln Lys Glu Arg
 20           25           30
Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
 35           40           45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
 50           55           60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
 65           70           75           80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
 85           90           95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
100           105           110
Ser Ser Thr Asp Ser Leu Ile Lys Ile
115           120

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&lt;210&gt; 4507

&lt;211&gt; 3664

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4507

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&lt;210&gt; 4508

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4508

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 115 120 125  
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 145 150 155 160  
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&lt;210&gt; 4509

&lt;211&gt; 11680

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4509

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&lt;210&gt; 4510

&lt;211&gt; 3266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4510

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Ala	Thr	Arg	Thr	Leu	Phe	Ile	Gly	Asn	Leu	Glu	Lys	Thr	Thr	Thr	Tyr
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His	Asp	Leu	Arg	Asn	Ile	Phe	Gln	Arg	Phe	Gly	Glu	Ile	Val	Asp	Ile
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 Gln Lys Ser Glu Glu Ala Asn Glu Pro Lys Ala Glu Lys Pro Asp Ala

1365 1370 1375  
 Thr Ala Asp Ala Glu Pro Asp Ala Asn Gln Lys Ala Glu Ala Ala Pro  
 1380 1385 1390  
 Glu Ser Gln Pro Pro Ala Ser Glu Asp Leu Glu Val Asp Pro Pro Val  
 1395 1400 1405  
 Ala Ala Lys Asp Lys Lys Pro Asn Lys Ser Lys Arg Ser Lys Thr Pro  
 1410 1415 1420  
 Val Gln Ala Ala Ala Val Ser Ile Val Glu Lys Pro Val Thr Arg Lys  
 1425 1430 1435 1440  
 Ser Glu Arg Ile Asp Arg Glu Lys Leu Lys Arg Ser Asn Ser Pro Arg  
 1445 1450 1455  
 Gly Glu Ala Gln Lys Leu Leu Glu Leu Lys Met Glu Ala Glu Lys Ile  
 1460 1465 1470  
 Thr Arg Thr Ala Ser Lys Asn Ser Ala Ala Asp Leu Glu His Pro Glu  
 1475 1480 1485  
 Pro Ser Leu Pro Leu Ser Arg Thr Arg Arg Arg Asn Val Arg Ser Val  
 1490 1495 1500  
 Tyr Ala Thr Met Gly Asp His Glu Asn Arg Ser Pro Val Lys Glu Pro  
 1505 1510 1515 1520  
 Val Glu Gln Pro Arg Val Thr Arg Lys Arg Leu Glu Arg Glu Leu Gln  
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 Glu Ala Ala Ala Val Pro Thr Thr Pro Arg Arg Gly Arg Pro Pro Lys  
 1540 1545 1550  
 Thr Arg Arg Arg Ala Asp Glu Glu Glu Glu Asn Glu Ala Lys Glu Pro  
 1555 1560 1565  
 Ala Glu Thr Leu Lys Pro Pro Glu Gly Trp Arg Ser Pro Arg Ser Gln  
 1570 1575 1580  
 Lys Thr Ala Ala Gly Gly Gly Pro Gln Gly Lys Lys Gly Lys Asn Glu  
 1585 1590 1595 1600  
 Pro Lys Val Asp Ala Thr Arg Pro Glu Ala Thr Thr Glu Val Gly Pro  
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 Gln Ile Gly Val Lys Glu Ser Ser Met Glu Pro Lys Ala Ala Glu Glu  
 1620 1625 1630  
 Glu Ala Gly Ser Glu Gln Lys Arg Asp Arg Lys Asp Ala Gly Thr Asp  
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 Lys Asn Pro Pro Glu Thr Ala Pro Val Glu Val Val Glu Lys Lys Pro  
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 Ala Pro Glu Lys Asn Ser Lys Ser Lys Arg Gly Arg Ser Arg Asn Ser  
 1665 1670 1675 1680  
 Arg Leu Ala Val Asp Lys Ser Ala Ser Leu Lys Asn Val Asp Ala Ala  
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 Val Ser Pro Arg Gly Ala Ala Ala Gln Ala Gly Glu Arg Glu Ser Gly  
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 1715 1720 1725  
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 1730 1735 1740  
 Pro Glu Lys Glu Asp Val Ser Ala Ser Gly Pro Ser Pro Glu Ala Thr  
 1745 1750 1755 1760  
 Gln Leu Ala Lys Gln Met Glu Leu Glu Gln Ala Val Glu His Ile Ala  
 1765 1770 1775  
 Lys Leu Ala Glu Ala Ser Ala Ser Ala Ala Tyr Lys Ala Asp Ala Pro  
 1780 1785 1790  
 Glu Gly Leu Ala Pro Glu Asp Arg Asp Lys Pro Ala His Gln Ala Ser



1795                      1800                      1805  
 Glu Thr Glu Leu Ala Ala Ala Ile Gly Ser Ile Ile Asn Asp Ile Ser  
 1810                      1815                      1820  
 Gly Glu Pro Glu Asn Phe Pro Ala Pro Pro Pro Tyr Pro Gly Glu Ser  
 1825                      1830                      1835                      1840  
 Gln Thr Asp Leu Gln Pro Pro Ala Gly Ala Gln Ala Leu Gln Pro Ser  
 1845                      1850                      1855  
 Glu Glu Gly Met Glu Thr Asp Glu Ala Val Ser Gly Ile Leu Glu Thr  
 1860                      1865                      1870  
 Glu Ala Ala Thr Glu Ser Ser Arg Pro Pro Val Asn Ala Pro Asp Pro  
 1875                      1880                      1885  
 Ser Ala Gly Pro Thr Asp Thr Lys Glu Ala Arg Gly Asn Ser Ser Glu  
 1890                      1895                      1900  
 Thr Ser His Ser Val Pro Glu Ala Lys Gly Ser Lys Glu Val Glu Val  
 1905                      1910                      1915                      1920  
 Thr Leu Val Arg Lys Asp Lys Gly Arg Gln Lys Thr Thr Arg Ser Arg  
 1925                      1930                      1935  
 Arg Lys Arg Asn Thr Asn Lys Lys Val Val Ala Pro Val Glu Ser His  
 1940                      1945                      1950  
 Val Pro Glu Ser Asn Gln Ala Gln Gly Glu Ser Pro Ala Ala Asn Glu  
 1955                      1960                      1965  
 Gly Thr Thr Val Gln His Pro Glu Ala Pro Gln Glu Glu Lys Gln Ser  
 1970                      1975                      1980  
 Glu Lys Pro His Ser Thr Pro Pro Gln Ser Cys Thr Ser Asp Leu Ser  
 1985                      1990                      1995                      2000  
 Lys Ile Pro Ser Thr Glu Asn Ser Ser Gln Glu Ile Ser Val Glu Glu  
 2005                      2010                      2015  
 Arg Thr Pro Thr Lys Ala Ser Val Pro Pro Asp Leu Pro Pro Pro Pro  
 2020                      2025                      2030  
 Gln Pro Ala Pro Val Asp Glu Glu Pro Gln Ala Arg Phe Arg Val His  
 2035                      2040                      2045  
 Ser Ile Ile Glu Ser Asp Pro Val Thr Pro Pro Ser Asp Pro Ser Ile  
 2050                      2055                      2060  
 Pro Ile Pro Thr Leu Pro Ser Val Thr Ala Ala Lys Leu Ser Pro Pro  
 2065                      2070                      2075                      2080  
 Val Ala Ser Gly Gly Ile Pro His Gln Ser Pro Pro Thr Lys Val Thr  
 2085                      2090                      2095  
 Glu Trp Ile Thr Arg Gln Glu Glu Pro Arg Ala Gln Ser Thr Pro Ser  
 2100                      2105                      2110  
 Pro Ala Leu Pro Pro Asp Thr Lys Ala Ser Asp Val Asp Thr Ser Ser  
 2115                      2120                      2125  
 Ser Thr Leu Arg Lys Ile Leu Met Asp Pro Lys Tyr Val Ser Ala Thr  
 2130                      2135                      2140  
 Ser Val Thr Ser Thr Ser Val Thr Thr Ala Ile Ala Glu Pro Val Ser  
 2145                      2150                      2155                      2160  
 Ala Ala Pro Cys Leu His Glu Ala Pro Pro Pro Pro Val Asp Ser Lys  
 2165                      2170                      2175  
 Lys Pro Leu Glu Glu Lys Thr Ala Pro Pro Val Thr Asn Asn Ser Glu  
 2180                      2185                      2190  
 Ile Gln Ala Ser Glu Val Leu Val Ala Ala Asp Lys Glu Lys Val Ala  
 2195                      2200                      2205  
 Pro Val Ile Ala Pro Lys Ile Thr Ser Val Ile Ser Arg Met Pro Val  
 2210                      2215                      2220  
 Ser Ile Asp Leu Glu Asn Ser Gln Lys Ile Thr Leu Ala Lys Pro Ala

2225                      2230                      2235                      2240  
 Pro Gln Thr Leu Thr Gly Leu Val Ser Ala Leu Thr Gly Leu Val Asn  
                                  2245                      2250                      2255  
 Val Ser Leu Val Pro Val Asn Ala Leu Lys Gly Pro Val Lys Gly Ser  
                                  2260                      2265                      2270  
 Val Thr Thr Leu Lys Ser Leu Val Ser Thr Pro Ala Gly Pro Val Asn  
                                  2275                      2280                      2285  
 Val Leu Lys Gly Pro Val Asn Val Leu Thr Gly Pro Val Asn Val Leu  
                                  2290                      2295                      2300  
 Thr Thr Pro Val Asn Ala Thr Val Gly Thr Val Asn Ala Ala Pro Gly  
 2305                      2310                      2315                      2320  
 Thr Val Asn Ala Ala Ala Ser Ala Val Asn Ala Thr Ala Ser Ala Val  
                                  2325                      2330                      2335  
 Thr Val Thr Ala Gly Ala Val Thr Ala Ala Ser Gly Gly Val Thr Ala  
                                  2340                      2345                      2350  
 Thr Thr Gly Thr Val Thr Met Ala Gly Ala Val Ile Ala Pro Ser Thr  
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 Lys Cys Lys Gln Arg Ala Ser Ala Asn Glu Asn Ser Arg Phe His Pro  
                                  2370                      2375                      2380  
 Gly Ser Met Pro Val Ile Asp Asp Arg Pro Ala Asp Ala Gly Ser Gly  
 2385                      2390                      2395                      2400  
 Ala Gly Leu Arg Val Asn Thr Ser Glu Gly Val Val Leu Leu Ser Tyr  
                                  2405                      2410                      2415  
 Ser Gly Gln Lys Thr Glu Gly Pro Gln Arg Ile Ser Ala Lys Ile Ser  
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 Gln Ile Pro Pro Ala Ser Ala Met Asp Ile Glu Phe Gln Gln Ser Val  
                                  2435                      2440                      2445  
 Ser Lys Ser Gln Val Lys Pro Asp Ser Val Thr Ala Ser Gln Pro Pro  
                                  2450                      2455                      2460  
 Ser Lys Gly Pro Gln Ala Pro Ala Gly Tyr Ala Asn Val Ala Thr His  
 2465                      2470                      2475                      2480  
 Ser Thr Leu Val Leu Thr Ala Gln Thr Tyr Asn Ala Ser Pro Val Ile  
                                  2485                      2490                      2495  
 Ser Ser Val Lys Ala Asp Arg Pro Ser Leu Glu Lys Pro Glu Pro Ile  
                                  2500                      2505                      2510  
 His Leu Ser Val Ser Thr Pro Val Thr Gln Gly Gly Thr Val Lys Val  
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 Leu Thr Gln Gly Ile Asn Thr Pro Pro Val Leu Val His Asn Gln Leu  
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 Val Leu Thr Pro Ser Ile Val Thr Thr Asn Lys Lys Leu Ala Asp Pro  
 2545                      2550                      2555                      2560  
 Val Thr Leu Lys Ile Glu Thr Lys Val Leu Gln Pro Ala Asn Leu Gly  
                                  2565                      2570                      2575  
 Ser Thr Leu Thr Pro His His Pro Pro Ala Leu Pro Ser Lys Leu Pro  
                                  2580                      2585                      2590  
 Thr Glu Val Asn His Val Pro Ser Gly Pro Ser Ile Pro Ala Asp Arg  
                                  2595                      2600                      2605  
 Thr Val Ser His Leu Ala Ala Lys Leu Asp Ala His Ser Pro Arg  
                                  2610                      2615                      2620  
 Pro Ser Gly Pro Gly Pro Ser Ser Phe Pro Arg Ala Ser His Pro Ser  
 2625                      2630                      2635                      2640  
 Ser Thr Ala Ser Thr Ala Leu Ser Thr Asn Ala Thr Val Met Leu Ala  
                                  2645                      2650                      2655  
 Ala Gly Ile Pro Val Pro Gln Phe Ile Ser Ser Ile His Pro Glu Gln

	2660		2665		2670
Ser Val Ile Met Pro Pro His Ser Ile Thr Gln Thr Val Ser Leu Ser					
2675		2680		2685	
His Leu Ser Gln Gly Glu Val Arg Met Asn Thr Pro Thr Leu Pro Ser					
2690		2695		2700	
Ile Thr Tyr Ser Ile Arg Pro Glu Ala Leu His Ser Pro Arg Ala Pro					
2705		2710		2715	
Leu Gln Pro Gln Gln Ile Glu Val Arg Ala Pro Gln Arg Ala Ser Thr					
	2725		2730		2735
Pro Gln Pro Ala Pro Ala Gly Val Pro Ala Leu Ala Ser Gln His Pro					
	2740		2745		2750
Pro Glu Glu Glu Val His Tyr His Leu Pro Val Ala Arg Ala Thr Ala					
	2755		2760		2765
Pro Val Gln Ser Glu Val Leu Val Met Gln Ser Glu Tyr Arg Leu His					
	2770		2775		2780
Pro Tyr Thr Val Pro Arg Asp Val Arg Ile Met Val His Pro His Val					
2785		2790		2795	
Thr Ala Val Ser Glu Gln Pro Arg Ala Ala Asp Gly Val Val Lys Val					
	2805		2810		2815
Pro Pro Ala Ser Lys Ala Pro Gln Gln Pro Gly Lys Glu Ala Ala Lys					
	2820		2825		2830
Thr Pro Asp Ala Lys Ala Ala Pro Thr Pro Thr Pro Ala Pro Val Pro					
	2835		2840		2845
Val Pro Val Pro Leu Pro Ala Pro Ala Pro Ala Pro His Gly Glu Ala					
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Arg Ile Leu Thr Val Thr Pro Ser Asn Gln Leu Gln Gly Leu Pro Leu					
	2865		2870		2875
Thr Pro Pro Val Val Thr His Gly Val Gln Ile Val His Ser Ser					
	2885		2890		2895
Gly Glu Leu Phe Gln Glu Tyr Arg Tyr Gly Asp Ile Arg Thr Tyr His					
	2900		2905		2910
Pro Pro Ala Gln Leu Thr His Thr Gln Phe Pro Ala Ala Ser Ser Val					
	2915		2920		2925
Gly Leu Pro Ser Arg Thr Lys Thr Ala Ala Gln Gly Pro Pro Pro Glu					
	2930		2935		2940
Gly Glu Pro Leu Gln Pro Pro Gln Pro Val Gln Ser Thr Gln Pro Ala					
	2945		2950		2955
Gln Pro Ala Pro Pro Cys Pro Pro Ser Gln Leu Gly Gln Pro Gly Gln					
	2965		2970		2975
Pro Pro Ser Ser Lys Met Pro Gln Val Ser Gln Glu Ala Lys Gly Thr					
	2980		2985		2990
Gln Thr Gly Val Glu Gln Pro Arg Leu Pro Ala Gly Pro Ala Asn Arg					
	2995		3000		3005
Pro Pro Glu Pro His Thr Gln Val Gln Arg Ala Gln Ala Glu Thr Gly					
	3010		3015		3020
Pro Thr Ser Phe Pro Ser Pro Val Ser Val Ser Met Lys Pro Asp Leu					
	3025		3030		3035
Pro Val Ser Leu Pro Thr Gln Thr Ala Pro Lys Gln Pro Leu Phe Val					
	3045		3050		3055
Pro Thr Thr Ser Gly Pro Ser Thr Pro Pro Gly Leu Val Leu Pro His					
	3060		3065		3070
Thr Glu Phe Gln Pro Ala Pro Lys Gln Asp Ser Ser Pro His Leu Thr					
	3075		3080		3085
Ser Gln Arg Pro Val Asp Met Val Gln Leu Leu Lys Lys Tyr Pro Ile					

3090                      3095                      3100  
 Val Trp Gln Gly Leu Leu Ala Leu Lys Asn Asp Thr Ala Ala Val Gln  
 3105                      3110                      3115                      3120  
 Leu His Phe Val Ser Gly Asn Asn Val Leu Ala His Arg Ser Leu Pro  
                     3125                      3130                      3135  
 Leu Ser Glu Gly Gly Pro Pro Leu Arg Ile Ala Gln Arg Met Arg Leu  
                     3140                      3145                      3150  
 Glu Ala Thr Gln Leu Glu Gly Val Ala Arg Arg Met Thr Leu Ala Ser  
                     3155                      3160                      3165  
 Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly  
                     3170                      3175                      3180  
 Arg Asp Gln Glu Asp Val Val Ser Gln Thr Glu Ser Leu Lys Ala Ala  
 3185                      3190                      3195                      3200  
 Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val  
                     3205                      3210                      3215  
 Pro Asn Pro Gly Ser Asn Gln Pro Ala Tyr Val Leu Gln Ile Phe Pro  
                     3220                      3225                      3230  
 Pro Cys Glu Phe Ser Glu Ser His Leu Ser Arg Leu Ala Pro Asp Leu  
                     3235                      3240                      3245  
 Leu Ala Ser Ile Ser Asn Ile Ser Pro His Leu Met Ile Val Ile Ala  
                     3250                      3255                      3260  
 Ser Val  
 3265

<210> 4511  
 <211> 1375  
 <212> DNA  
 <213> Homo sapiens

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 120  
 attcctaaat taccacagtg tctacgggag gaagaagaga aggagagcga ctctgattca  
 180  
 gaagggtccca ttcagtaccg agatgaagaa gatgaagatg aaagctatca gagtgcactc  
 240  
 gccaaacaaag tgaagaggaa agacacactg gcaatgaagt tgaaccacag acccagtga  
 300  
 ccagagttga acctgaattc ttggccttgt aaaagcaagg aggagtggaa tgaaatacgg  
 360  
 caccagattg gaaacacact gatccggcga ctgagtcaaa gaccaacacc agaagaacta  
 420  
 gaacaacgca atatattgca acctaaaaat gaagctgatc gtcaggcaga aaaacgagaa  
 480  
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 540  
 aggaagattc tgaggtttaa tgaatatgta gaggtaacag atgctcaaga ttatgaccgg  
 600  
 cgagccgaca aaccttggac caaactgacc cctgctgaca aggetgccat aagaaaagaa  
 660  
 ttaaatgaat ttaaaagctc cgagatggag gttcatgaag agagcaaaca ttttacacgc  
 720

taccatcgtc catgatgcca aagggtgaga gaggaatcaa catggctgct ttgctgcttc  
 780  
 cttctccaaa gtgacatatg gagggaaactt tagcacttcc cagcacagcc agaattgcat  
 840  
 cctctgggat cttctgaggt ggacagcact ttgaatgtag catttcactg gaacagagtc  
 900  
 ttatgtgctg caccgggggc aaaacaacac tttgtcagtg cttttgaacc tttcaatatt  
 960  
 gtagcatgct tgaggagttt ttcccttact ggccaccaa gttctgaacc acttgaggt  
 1020  
 tccagggtttt actggctgca ccacacccct tcccctagat gactgcctgt gcagagacac  
 1080  
 agtttgcacc attagcctta cctgccctgc cctgattgtg agacccaa at gtgtaggctc  
 1140  
 taaattccag ccatcaa atc caattcctgg tggggaaaac cttctggaga cccccaacct  
 1200  
 tctgataaaa gagtctctac ctccagggaa agccttctta ccacactggc atatcagatg  
 1260  
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 1375

<210> 4512

<211> 244

<212> PRT

<213> Homo sapiens

<400> 4512

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Pro	Asp	Asp	Glu	Glu	Glu	Glu	Gln	Thr	Cys	Pro	Ser	Thr	Phe	Ser	
			20				25					30			
Glu	Glu	Met	Thr	Pro	Thr	Ser	Val	Ile	Pro	Lys	Leu	Pro	Gln	Cys	Leu
		35				40					45				
Arg	Glu	Glu	Glu	Glu	Lys	Glu	Ser	Asp	Ser	Asp	Ser	Glu	Gly	Pro	Ile
		50			55					60					
Gln	Tyr	Arg	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Ser	Tyr	Gln	Ser	Ala	Leu
65				70				75						80	
Ala	Asn	Lys	Val	Lys	Arg	Lys	Asp	Thr	Leu	Ala	Met	Lys	Leu	Asn	His
			85				90						95		
Arg	Pro	Ser	Glu	Pro	Glu	Leu	Asn	Leu	Asn	Ser	Trp	Pro	Cys	Lys	Ser
		100					105					110			
Lys	Glu	Glu	Trp	Asn	Glu	Ile	Arg	His	Gln	Ile	Gly	Asn	Thr	Leu	Ile
		115				120					125				
Arg	Arg	Leu	Ser	Gln	Arg	Pro	Thr	Pro	Glu	Glu	Leu	Glu	Gln	Arg	Asn
		130				135					140				
Ile	Leu	Gln	Pro	Lys	Asn	Glu	Ala	Asp	Arg	Gln	Ala	Glu	Lys	Arg	Glu
145				150					155					160	
Ile	Lys	Arg	Arg	Leu	Thr	Arg	Lys	Leu	Ser	Gln	Arg	Pro	Thr	Val	Ala
		165					170						175		
Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
		180					185					190			
Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

	195		200		205										
Leu	Thr	Pro	Ala	Asp	Lys	Ala	Ala	Ile	Arg	Lys	Glu	Leu	Asn	Glu	Phe
	210		215		220										
Lys	Ser	Ser	Glu	Met	Glu	Val	His	Glu	Glu	Ser	Lys	His	Phe	Thr	Arg
225			230						235						240
Tyr	His	Arg	Pro												

<210> 4513  
 <211> 545  
 <212> DNA  
 <213> Homo sapiens

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 120  
 tcagcacctg caccggggg ttgggccctg gggttcctt cccagtccag cctctcagct  
 180  
 cctgtctgtg gcttagcacg tgcaccacag agccaaccag atcctctgta aacttttggg  
 240  
 cttctctggc cttcacggga cttctgtgg cagaaatcat tttcataatc atgagactct  
 300  
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 360  
 cgttctcact gggtccttc gccttcctg tcaggtcgac cctccgcatg ccatcataca  
 420  
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 540  
 gatca  
 545

<210> 4514  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

Met	Val	Thr	Arg	Leu	Tyr	Asp	Gly	Met	Arg	Arg	Val	Asp	Leu	Thr	Gly
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		20					25						30		
Ser	Met	Ser	His	Leu	Leu	Lys	Gly	Asn	Ser	Glu	Glu	Lys	Ser	Leu	Met
	35					40						45			
Ile	Met	Lys	Met	Ile	Ser	Ala	Thr	Glu	Gly	Pro	Val	Lys	Ala	Arg	Glu
	50				55					60					
Val	Gln	Lys	Phe	Thr	Glu	Asp	Leu	Val	Gly	Ser	Val	Val	His	Val	Leu
65				70				75						80	
Ser	His	Arg	Gln	Glu	Leu	Arg	Gly	Trp	Thr	Gly	Lys	Glu	Ala	Pro	Gly
			85				90						95		
Pro	Asn	Pro	Arg	Val	Gln	Val	Leu	Thr	Ala	Gln	Leu	Leu	Ser	Asp	Met

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Lys	Leu	Gln	Gly	Lys	Cys	Ala	Trp	Thr	Arg
	115						120		

<210> 4515  
 <211> 3207  
 <212> DNA  
 <213> Homo sapiens

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 120  
 tcggaacctg gccggggccc tccaccgcg cctgggtccc ggtgggtgctg ccccgtagcg  
 180  
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 240  
 gcgctggggc cggggtcgc gggggccac cctcagcgt gcggcgctct ggcgcgctc  
 300  
 gggggctccg tgcgcctggg cgcctcctg ccccgcgcg ctctcgccc cgcccgcgcc  
 360  
 cgcgccgccc tggcccggg cgccctggcg ccgaggctgc cgcacaacct gagcttggag  
 420  
 ctggtggctg ccgcccccc cgcccgcgac cccgcctcgc tgaccgcgg cctgtgccag  
 480  
 gcgctgggtg ctccgggcgt ggcgccctg ctgcctttc ccgaggctcg gcccagctg  
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 660  
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 720  
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 780  
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 840  
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 ctgccaccag ggctgctggc gctgggcgag gtggcacgac ccccgctgga ggccgccatc  
 1080  
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 1200  
 ccggggcgct tcttggcaag gttcctggcc aacacgtcct tccagggccg caccggcccc  
 1260  
 gtgtgggtga caggcagctc ccaggtacac atgtctcggc actttaaggc gtggagcctt  
 1320

cgccgggacc cacggggcgc cccggcctgg gccacggtgg gcagctggcg gtacggccag  
1380  
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1440  
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gacgaagacg ggcagtggcc agcagggcag ctgtgcctgg accccggcac caacgactcg  
1560  
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gacttcgagc tgtacctcgt gggtgacggc aagtacggcg ccctgcggga cggccgctgg  
1740  
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<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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              420              425              430
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              435              440              445
Lys Ser Leu Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr
              450              455              460
Asp Arg Gly Leu Asp Glu Glu Gly Glu Glu Glu Ser Ser Ala Gly Ser
465              470              475              480
Leu Pro Leu Val Ser Val Ser Leu Phe Thr Pro Leu Thr Ala Ala Glu
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Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
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Glu Ser Gly Pro Ala Ser Pro Thr Pro Asp Leu Leu Glu Val Leu Ser
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Asp Ile Asp Glu Met Ser Arg Arg Arg Pro Glu Ile Leu Ser Phe Phe
530              535              540
Ser Thr Asn Leu Gln Arg Leu Met Ser Ser Ala Glu Glu Cys Cys Arg
545              550              555              560
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Ile Ala Ala Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln
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Asp Phe Glu Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala
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Leu Leu Cys Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu
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<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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Ile	Gln	Lys	Asp	Lys	Asp	Ile	Pro	Ala	Glu	Asp	Ile	Ile	Cys	Glu	Tyr
	100							105					110		
Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln
	115						120					125			
Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys
	130					135				140					
Thr	Cys	Gly	Ser	Gly	Leu	Gln	His	Arg	Thr	Arg	His	Val	Val	Ala	Pro
145					150				155					160	
Pro	Gln	Phe	Gly	Gly	Ser	Gly	Cys	Pro	Asn	Leu	Thr	Glu	Phe	Gln	Val
			165					170						175	
Cys	Gln	Ser	Ser	Pro	Cys	Glu	Ala	Glu	Glu	Leu	Arg	Tyr	Ser	Leu	His
	180					185						190			
Val	Gly	Pro	Trp	Ser	Thr	Cys	Ser	Met	Pro	His	Ser	Arg	Gln	Val	Arg
	195					200						205			
Gln	Ala	Arg	Arg	Arg	Gly	Lys	Asn	Lys	Glu	Arg	Glu	Lys	Asp	Arg	Ser
	210				215				220						
Lys	Gly	Val	Lys	Asp	Pro	Glu	Ala	Arg	Glu	Leu	Ile	Lys	Lys	Lys	Arg
225				230					235					240	
Asn	Arg	Asn	Arg	Gln	Asn	Arg	Gln	Glu	Asn	Lys	Tyr	Trp	Asp	Ile	Gln
			245					250						255	
Ile	Gly	Tyr	Gln	Thr	Arg	Glu	Val	Met	Cys	Ile	Asn	Lys	Thr	Gly	Lys
	260					265						270			
Ala	Ala	Asp	Leu	Ser	Phe	Cys	Gln	Gln	Glu	Lys	Leu	Pro	Met	Thr	Phe
	275					280						285			
Gln	Ser	Cys	Val	Ile	Thr	Lys	Glu	Cys	Gln	Val	Ser	Glu	Trp	Ser	Glu



290		295		300
Trp Ser Pro Cys Ser Lys Thr Cys His Asp Met Val Ser Pro Ala Gly				
305		310		315
Thr Arg Val Arg Thr Arg Thr Ile Arg Gln Phe Pro Ile Gly Ser Glu				
		325		330
Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly				
		340		345
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp				
		355		360
Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg				
		370		375
Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val				
385		390		395
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His				
		405		410
Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly				
		420		425
Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu				
		435		440
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn				
		450		455
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg				
465		470		475
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro				
		485		490
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp				
		500		505
Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys				
		515		520
Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly				
		530		535
Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro				
545		550		555
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp				
		565		570
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu				
		580		585
Gly Lys Gln Ile Arg Ala Arg Ser Ile Leu Ala Tyr Ala Gly Glu Glu				
		595		600
Gly Glu Ser Pro Ala Ser Asp Ala Ile				605
		610		615

&lt;210&gt; 4521

&lt;211&gt; 1071

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4521

nagattccta taaaggatca tgaattagat gggtagtaga tttatccaca atgataaaga

60

tcagaagaaa tgaaataatg ccttcaaacg actgaggaaa aataattatt aacctataat

120

ttataccaat ataaacaatt actcaggaaa aaaagaaaat aaaaacttgc aagggtctaaa

180

ataacttgct taccaccaa gatgcttgct ctaagaactg tgaagggatt caagaggaaa  
 240  
 agtacacca gagagggctc atacatgtcc tctccccctc ctctccacc accaggacac  
 300  
 acagaaactg cctcctcttt tcagccctct cccttctcag ctgactttga gctacaaata  
 360  
 tcccttctct acttgagag ccccatTTca ttacaggaat ttgctttgag ttttattatc  
 420  
 attttagtct atgtcttaga ttgggctgct ataacaaggt gccataggct gagcggctta  
 480  
 aacaacaaac actcatatcc cacagttaca gaggctgaga agcctggggg caaggtacca  
 540  
 gcatggctctg attctgttct ggaggctggg aaatccaaga tggaagcact ggtaggtttg  
 600  
 gtgtctggga gggcttctct ctgcttccaa gatgggtgct tgtcgctgca tcttcagag  
 660  
 ggaaggaatg ctgtgtcctt gcagcacaga agaaacacat ctgaaaagaa atcaagcaga  
 720  
 aaagttgaaa ataaagagat ggaatatata tatgaaaact actacatata ggaagggatg  
 780  
 tagcaaagac acagagagaa tataatttaa ggcaaaaagc ttcaatagga tttcaaagca  
 840  
 aaccttgcat actaaaaaaaa ggaaacccaa aataaaccaa aagaaaccga aaaccatgaa  
 900  
 cttgcaggag aattttccaa agccgtaatt ataatgagag tgtttttaag tctataagaa  
 960  
 attaatatat caaacaata aagattaata agaatttgga atttgtatga aatggcaag  
 1020  
 gaaaagccag gcgtggtggc ttacgcctgt aatgccagca ctttgggagg c  
 1071

&lt;210&gt; 4522

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4522

Met	Leu	Ala	Leu	Arg	Thr	Val	Lys	Gly	Phe	Lys	Arg	Lys	Ser	Thr	Pro
1				5					10					15	
Arg	Glu	Gly	Ser	Tyr	Met	Ser	Ser	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Gly
			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
			50			55					60				
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65					70					75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
				85				90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105					110		
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
		115				120					125				
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

130		135		140											
Gly	Ala	Leu	Ser	Leu	His	Leu	Pro	Glu	Gly	Arg	Asn	Ala	Val	Ser	Leu
145				150						155					160
Gln	His	Arg	Arg	Asn	Thr	Ser	Glu	Lys	Lys	Ser	Ser	Arg	Lys	Val	Glu
				165						170					175
Asn	Lys	Glu	Met	Glu	Tyr	Ile	Tyr	Glu	Asn	Tyr	Tyr	Ile			
			180						185						

<210> 4523  
 <211> 1022  
 <212> DNA  
 <213> Homo sapiens

<400> 4523  
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 60  
 gacactccca ggctgagtct cntcttggtg attctgggcg tcatcttcat gaatggcaac  
 120  
 cgtgccagcg aggctgtcct ctgggaggca ctacgcaaga tgggactgcg ccctgggggtg  
 180  
 aggcacccat tctcggcgga tctgaggaag ctcatcacag atgactttgt gaagcagaag  
 240  
 tacctggaat acaagaagat cccaacagc aaccacctg agtatgaatt cctctggggc  
 300  
 ctgcgagccc gccatgagac cagcaagatg agggtcctga gattcatcgc ccagaatcag  
 360  
 aaccgagacc cccgggaatg gaaggctcat ttcttgaggg ctgtggatga tgctttcaag  
 420  
 acaatggatg tggatatggc cgaggaacat gccagggccc agatgagggc ccagatgaat  
 480  
 atcggggatg aagcgctgat tggacgggtg agctgggatg acatacaagt cgagctcctg  
 540  
 acctgggatg aggacggaga ttttgccgat gcctgggcca ggatccccctt tgctttcttg  
 600  
 gccagatacc atcagtacat tctgaatagc aaccgtgcca acaggagggc cacgtggaga  
 660  
 gctggcgta gcagtggcac caatggaggg gccagcacca gcgtcctaga tggccccagc  
 720  
 accagctcca ccatccggac cagaaatgct gccagagctg gcgccagctt cttctcctgg  
 780  
 atccagtagg agtttcggca ccgttgacga actgcagcga tcttactggc caagccagag  
 840  
 cgctcctct cagattcctt ctgcacacag caccctaggc ggcttcttcc tgtcagtcgg  
 900  
 aggtggcatg caagatgaag ctctctttgc tcttctgct ttcattttgt gcttttctt  
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 1020  
 aa  
 1022

<210> 4524  
 <211> 262  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4524

Ala Leu Tyr Ile Leu Val Cys Thr Arg Asp Ser Ser Ala Arg Leu Leu  
 1 5 10 15  
 Gly Lys Thr Lys Asp Thr Pro Arg Leu Ser Leu Xaa Leu Val Ile Leu  
 20 25 30  
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp  
 35 40 45  
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe  
 50 55 60  
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys  
 65 70 75 80  
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu  
 85 90 95  
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val  
 100 105 110  
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys  
 115 120 125  
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val  
 130 135 140  
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn  
 145 150 155 160  
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln  
 165 170 175  
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp  
 180 185 190  
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu  
 195 200 205  
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser  
 210 215 220  
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser  
 225 230 235 240  
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser  
 245 250 255  
 Phe Phe Ser Trp Ile Gln  
 260

&lt;210&gt; 4525

&lt;211&gt; 1731

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4525

nngaaccatg gcattctcca ggctctgacc acagaagctt atgaatggga gccacgtgtt  
 60  
 gtgagtacag aggtggtcag agcccaagaa gaatgggaag ctgtggacac catccagcca  
 120  
 gagacagggga gccaaactag ctcagagcag cctgggcagc taatctcctt cagtgaggcc  
 180  
 ctgcagcact tccagactgt ggacctttcc cccttcaaga aaagaatcca gccaaactatt  
 240  
 cgaaggactg ggctcgccgc cctccgacac tacctcttcg ggctccaaa gctccaccag  
 300

cgcccttcggg aagaaagga cttggctctg accattgctc agtgtggcct ggatagccaa  
360  
gaccagtgct atggccgagt cctccagacc atctataaga agctgaccgg ctccaagttt  
420  
gactgtgccc ttcattgaaa ccactgggag gacctgggct ttcagggagc gaatccagcc  
480  
acagacctga gaggcgcagg cttccttgcc ctctgcacg tgctctacct agtgatggac  
540  
tcaaagacct tgccgatggc gcaggagatt ttccgctgt ctgctacca catccagcaa  
600  
ttccctttct gtttgatgtc cgtgaacatc acccacattg ccatccaggc cttgagagag  
660  
gagtgtctct ccagagagtg taatcggcag cagaaggtea tccccgtggg gaacagcttc  
720  
tatgccgcca cattcctcca cctcgcacat gtctggagga cacagcggaa gaccatctca  
780  
gactcgggct ttgtcctcaa aggtgtgctc tttcttctgg ggaggcctag gctgaatgca  
840  
cagtgtccca ggtccagaga gcccaagggtg gttgctagac tggttttggc tgcagttctt  
900  
ccccatccac actttctcaa attccagctt accaaaatct ccatcacca cccctggag  
960  
tctgctagtt ctcccttctc tgccctgact gtccgcttt tctggtctta tacttatgac  
1020  
aagcatatat tctgatcaaa aattgggagc cagggtccaa tagttggact attcaaagtt  
1080  
gcaattgtgc agacaaggta gagtgtgtgg tccctgtggc tgtagctggc tccctagcct  
1140  
acctctctgg tgatctctcc atctgaggct ccttcacttt ctctccatgg gataggggtt  
1200  
gggggtactc cctagagctg ctaggcttga ggccttgact gttgtgtcac ccagagcccc  
1260  
ctcaagcctt ctgtcccca attctctctg ttgcagagtt ggaagtattg gccaagaaga  
1320  
gccacggcg ggctgctcaa gaccctggag ctgtacttgg ccagggtgtc aaagggacag  
1380  
gcctccttgt tgggagcaca gaagtgtat gggccagaag cccctccctt caaggatctc  
1440  
accttcacag gtgagagtga cctgcagtct cactcatccg aaggcgtatg gctgatctga  
1500  
cctccgagat gaatggaggc ttaaaggctg agctgcaggg gctttcaggg ggtcagtgga  
1560  
gccatgtcag gagcctggcc aggcgcacc ccttgctgtc tcagcagatg ggatatagga  
1620  
agctcctggg cttagctgtg ggaagccaag taccctcacc ggcatgggac atgaggggca  
1680  
gctagacttc acccccttcc cgcagacctg cctccagagc aaggagaatt c  
1731

&lt;210&gt; 4526

&lt;211&gt; 344

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4526

Xaa Asn His Gly Ile Leu Gln Ala Leu Thr Thr Glu Ala Tyr Glu Trp  
 1 5 10 15  
 Glu Pro Arg Val Val Ser Thr Glu Val Val Arg Ala Gln Glu Glu Trp  
 20 25 30  
 Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser  
 35 40 45  
 Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe  
 50 55 60  
 Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile  
 65 70 75 80  
 Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro  
 85 90 95  
 Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile  
 100 105 110  
 Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu  
 115 120 125  
 Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu  
 130 135 140  
 His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala  
 145 150 155 160  
 Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr  
 165 170 175  
 Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg  
 180 185 190  
 Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val  
 195 200 205  
 Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser  
 210 215 220  
 Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe  
 225 230 235 240  
 Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg  
 245 250 255  
 Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu  
 260 265 270  
 Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro  
 275 280 285  
 Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His  
 290 295 300  
 Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu  
 305 310 315 320  
 Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser  
 325 330 335  
 Tyr Thr Tyr Asp Lys His Ile Phe  
 340

&lt;210&gt; 4527

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4527

nntttttttt tttttttttt tttttttttt tttttttttt tttttttttg cagagacatg  
 60

gctgcattta ttgttcccag cccggcgaga aggtgttccc agaaagggttc cttgggtcac  
 120  
 ctgccccacc agccttggtt ctgggctgcc atgtccccac gggggcagga gagaggcaca  
 180  
 agtcacagtc aggcaaggga gcctcagcgt cctgggcggg ggctgttggg gtccctccag  
 240  
 tcttcacctg ggaccctcgg ccaggctggg acagcatcca ggaggcgagg ctgcatggtc  
 300  
 cagcgggtggg tgcagggtggc aacaggctcgg cgggctgtgc aggttcctaaa aggagctctc  
 360  
 ggggttggcac tgggtgagac cagccccggg gccagcaggg gaatgagcgg tggagcaggg  
 420  
 gggtgtcggg cactgggggtg ggccccatct cctgtccttc cctcatgggt gctggaaggg  
 480  
 ccgcctccct ggctcagcat catctcagat tccgggactc aaacaccgtc tcctcgtcgc  
 540  
 tgtccagcga ggccatctcc gtgggggtcct cagtgttggc gaggaggccg tategcctcc  
 600  
 gctgaggctt cttcaacctt aacgcccggg tcaggaagta gagcgcggtc aggccgcaga  
 660  
 agcccaggat cacgtagaag gagcgcgta gcgccgagcc cgacgcccc ggcggaacgcg  
 720  
 tgtgcgtgct gttgtgtggc gcgccgggt ggctcccggt cgtcacggcc ggcggcggcg  
 780  
 acaacgtgac ctggcggggg cagcgggcag cctcttcggc accgcacggc agcgccgcca  
 840  
 gcagcagcgc cagcaggagc agcagcagcg gcggctgcag cacgc  
 885

<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

Xaa	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe
1				5				10						15	
Cys	Arg	Asp	Met	Ala	Ala	Phe	Ile	Val	Pro	Ser	Pro	Ala	Arg	Arg	Cys
			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
		35					40					45			
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
		50					55				60				
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
65					70				75					80	
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
				85				90					95		
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
			100					105					110		
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
		115					120					125			
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
		130				135					140				
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

```

145          150          155          160
Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
          165          170          175
Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
          180          185          190
Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
          195          200          205

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<210> 4529  
 <211> 546  
 <212> DNA  
 <213> Homo sapiens

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<400> 4529
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gtggccgccc cctaagctgc agccgccgga gccgcagaaa caagaggccg agccgtgtcg
120
aagatggagg agaaacctc agggcccatc ccggacatgc tggccactgc agagcccagc
180
tccagtgaga ccgacaagga ggtgttgtcc ccggctgtgc cagctgcagc cccctcctcc
240
tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
300
gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
360
gaccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
420
gacgacgccc acctccaggg aagcaaatac cttgtctccag ccctggctgc tgcctcagtt
480
ttcccagcgt ccgtgacctg gcacagcatc tgcaaaccca ctgcccgccg agccctatgc
540
agtctc
546

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<210> 4530  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

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<400> 4530
Met Glu Glu Lys Pro Ser Gly Pro Ile Pro Asp Met Leu Ala Thr Ala
1          5          10          15
Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
          20          25          30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
          35          40          45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
          50          55          60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
65          70          75          80
Pro Ala Leu Ala

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<210> 4531  
<211> 1414  
<212> DNA  
<213> Homo sapiens

<400> 4531  
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60  
gccggtccct tgcagggcgg tggggcccgg gccctggacc tactccgggg cctgccgcgt  
120  
gtgagccttg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga  
180  
ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc  
240  
cggccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac  
300  
gggtttaacg aaggacatag tttcagacgc cagtataagc ctttgagtct caatagactg  
360  
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt  
420  
gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatggtgt ccagctggtt  
480  
gaggagggtg ctgacacctt tacggcaaaa gttaatatg aagtacagtt ggcttcagaa  
540  
ctagctattg ctgccattga aaaaaatggt ggtgttggtta ctacagcctt ctatgatcca  
600  
agaagtcttg acattgtatg caaacctggt ccattctttc ttcgtggaca acccattcca  
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720  
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1080  
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1140  
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1200  
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1260  
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1320  
atgagagcag atggaatgag ttggtgaccc ctcttaatct gtagcctcag ggaaacacgg  
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1414

<210> 4532  
 <211> 296  
 <212> PRT  
 <213> Homo sapiens

<400> 4532  
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 Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly  
 20 25 30  
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys  
 35 40 45  
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg  
 50 55 60  
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys  
 65 70 75 80  
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu  
 85 90 95  
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro  
 100 105 110  
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr  
 115 120 125  
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly  
 130 135 140  
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser  
 145 150 155 160  
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr  
 165 170 175  
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro  
 180 185 190  
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu  
 195 200 205  
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala  
 210 215 220  
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr  
 225 230 235 240  
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu  
 245 250 255  
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly  
 260 265 270  
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu  
 275 280 285  
 Asn Leu Leu Lys Tyr Tyr Thr Ser  
 290 295

<210> 4533  
 <211> 968  
 <212> DNA  
 <213> Homo sapiens

<400> 4533  
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 120  
 gcgcggcggc cccgcgcagc catggactgg ctcattggga agtccaaagc caagcccaat  
 180  
 ggcaagaagc ccgctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc  
 240  
 aggatcaccg acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac  
 300  
 gagggtgctg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca  
 360  
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacagtac  
 420  
 tactggtatg acgagcgggg gaagaaggct aagtgcacgg cccacagta cgttgacttc  
 480  
 gtcattgagc ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc  
 540  
 agagaattcc ccagctcctt tgagtccctg gtgaggaaga tctgcagaca cctgttccac  
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 gtgctggcac acattctactg ggccacttc aaggagacgc tggccctgga gctgcacgga  
 660  
 cacttgaaca cgctctactg ccacttcact ctctttgctc gggagttcaa cctgctggac  
 720  
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggccggcggg  
 780  
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 840  
 gtgaaggaga gatgagcccc ccgggccgga caggggcaca cgtgtgcaaa gagacggtgg  
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 960  
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 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

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His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25				30			
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
		35				40					45				
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50				55					60					
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65				70				75						80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
			85					90					95		
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100						105					110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

```

      115              120              125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
      130              135              140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
145              150              155              160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165              170              175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180              185              190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195              200              205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210              215              220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
225              230              235              240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245              250              255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260              265              270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
      275              280

```

&lt;210&gt; 4535

&lt;211&gt; 473

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4535

```

cgactttttt tttttttttt ttttgagatg gagtctcggt ctgtcaccca ggctggagtg
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cagtggcatg atcacagctc actgcaacct ctgcctccca ggttcaagca gttctctnngc
120
ctcagcctcc cgagtagctg ggattacagg cgctccgccac cacgcccggc taatttttgt
180
attttttagta gaaacggggt ttcaccatct cggccagggt ggtcttgaac tcttgacctc
240
atgatccatc cgccttggtc tcccaaagtg ctgggattac aggcattgagc taccgcgccc
300
ggccttggtc gcagattaac gggaataacct cccttgggct tcctaggtga cactgtgata
360
ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
420
ccgggaccca cattgcctgg ttttgaatcc cagcacctcc acatgttacg cgt
473

```

&lt;210&gt; 4536

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4536

```

Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
1              5              10              15
Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

```

			20					25					30		
Pro	Arg	Phe	Lys	Gln	Phe	Ser	Xaa	Leu	Ser	Leu	Pro	Ser	Ser	Trp	Asp
		35					40					45			
Tyr	Arg	Arg	Pro	Pro	Pro	Arg	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg
	50					55					60				
Asn	Gly	Val	Ser	Pro	Ser	Arg	Pro	Gly	Trp	Ser					
65					70					75					

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<210> 4537
<211> 2811
<212> DNA
<213> Homo sapiens
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<400> 4537
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120
ataaaacggt ctgaactacc tctgcgaggt gacattgtct tctttcttca gaaggttcat
180
attccagaga gtatcttgat ttttcgggat gagattgacc tccatgcatt ataccaggct
240
ggccaactca ccctcatcct tgtcgaccat catatcttat ccaaagtgac cacagcccta
300
gaggagngca gtagcagagg tgctagacca tcgacccatc gagccgaaac actgccctcc
360
ctgnnccatg tttcagttga gctggtgggg tcctgtgcta ccctggtgac cgagagaatc
420
ctgcaggggg caccagagat cttggacagg caaactgcag cccttctgca tggaaccatc
480
atcctggact gtgtcaacat ggaccttaaa attggaaagg caaccccaaa ggacagcaaa
540
tatgtggaga aactagaggc ctttttccca gacctacca agagaaatga tatatttgat
600
tccctacaaa aggcaaagtt tgatgtatca ggactgacca ctgagcagat gctgagaaaa
660
gaccagaaga ctatctatag acaaggcgtc aagggtggcca ttagtgcaat atatatggat
720
ttggaggcct ttctgcagag gtctaacctc cttgcagatc tccatgcttt ctgccaggct
780
cacagctatg atgtcctggt tgccatgact atctttttca acactcacia tgagccagtg
840
cggcagttgg ctattttctg tccccatgtg gcaactccaaa caacgatctg tgaagtccctg
900
gaacgetccc actctccacc cctgaagctg acccctgcct caagtacca ccctaacctc
960
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1020
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1080
gatgtgtcca gggagcaagt ggacaaggaa ttggacaggg caagtaactc cctgatttct
1140
ggactgagtc aagatgagga ggaccctccg ctgccccoga cgcccatgaa cagcttggtg
1200

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gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt cttcgagaag  
1260  
tgcagtcaga tctcactgtc acagtctacc acagcctccc tgtccaagaa gtgactgttg  
1320  
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1380  
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1740  
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1920  
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1980  
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2160  
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2580  
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2640  
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2700  
agtgggtgta tcatgaacca aaggaattta tgttttgtaa cttgggtact ttattttgca  
2760  
ttttgttata ctattaaata attttttctt gttaaaaaaa aaaaaaaaaa a  
2811

&lt;210&gt; 4538

&lt;211&gt; 437

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4538

```

Xaa Ala Trp His Glu Gly Asn Glu Ala Cys Asp Leu Asp Ser Thr Val
 1           5           10           15
Ser Ala Leu Ala Leu Ala Phe Tyr Leu Ala Lys Thr Thr Glu Ala Glu
      20           25           30
Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
      35           40           45
Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
      50           55           60
Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
65           70           75           80
Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
      85           90           95
Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
      100          105          110
His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
      115          120          125
Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
      130          135          140
Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
145          150          155          160
Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
      165          170          175
Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
      180          185          190
Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
      195          200          205
Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
      210          215          220
Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
225          230          235          240
Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
      245          250          255
Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
      260          265          270
Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
      275          280          285
His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
      290          295          300
Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
305          310          315          320
His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
      325          330          335
Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
      340          345          350
Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
      355          360          365
Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

```

```

      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
      405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
      420              425              430
Ser Leu Ser Lys Lys
      435

```

```

<210> 4539
<211> 331
<212> DNA
<213> Homo sapiens

```

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<400> 4539
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120
tcacctggaa actccagcaa gagcagagggc aggtggagga gctgaggatg cagcttcaga
180
agcagaaaaag gaataactgt tcagagaaga agccgctgcc tttcctggct gcctccatca
240
agcaagaaga ggctgtctcc agctgtcctt ttgcatccca agtacctgtg aaaagacaaa
300
gcagcagctc aaagtgtcac ccaccggctt g
331

```

```

<210> 4540
<211> 99
<212> PRT
<213> Homo sapiens

```

```

<400> 4540
Met Gly Ala Leu Phe Leu Leu Ser Trp Met Gly Trp Thr Pro Arg Lys
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Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
      20      25      30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35      40      45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50      55      60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
      65      70      75      80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
      85      90      95
Pro Pro Ala

```

```

<210> 4541
<211> 452
<212> DNA
<213> Homo sapiens

```



&lt;400&gt; 4541

actagtcacc tcttctatca gatgatcacc tggatcatat tcttttagat taataatggc  
 60  
 cacaggcaga tccagggatg taactgcttc agcaagaact gttgcgaatc ccttcgctgt  
 120  
 tccagtctga gaaccataaa aaatcttcac tccagacaca aagatgtctt tctcttgaag  
 180  
 ggagacataa ccatttgtca tcaaactcctg agctgctttt ggaacagatt tttcctgtaa  
 240  
 gttcttgccc tgcgtcttga tgacaatctg gacacaaatc caaaggctaa tgctaacagc  
 300  
 aaagcccaaa taaatgtaaa acctgtttat ccacaatgat attaaagggtg agaagagggtc  
 360  
 ccatgtatcc gcagagggat ccatacctct cagagccgac aggagactag gatctcggac  
 420  
 ctggagagcc cgatgattcg cactgggtact gc  
 452

&lt;210&gt; 4542

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4542

Met	Asp	Pro	Ser	Ala	Asp	Thr	Trp	Asp	Leu	Phe	Ser	Pro	Leu	Ile	Ser
1				5				10					15		
Leu	Trp	Ile	Asn	Arg	Phe	Tyr	Ile	Tyr	Leu	Gly	Phe	Ala	Val	Ser	Ile
			20					25					30		
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
			35				40					45			
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
			50				55				60				
Gly	Tyr	Val	Ser	Leu	Gln	Glu	Lys	Asp	Ile	Phe	Val	Ser	Gly	Val	Lys
65					70					75				80	
Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
			85					90						95	
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
			100					105					110		
Leu	Lys	Glu	Tyr	Asp	Pro	Asp	Asp	His	Leu	Ile	Glu	Glu	Val	Thr	Ser
			115				120						125		

&lt;210&gt; 4543

&lt;211&gt; 815

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4543

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 120  
 gaggccccgc gcaccaatgc tttgcacttt gcctcgcccg acaccctgcg ggccagagct  
 180

cctctgccgc ccaccgggct aacccttcgc ggccctcacca ctcccagtg gctctgctta  
 240  
 tccggccact gactccggct cctcggaagc agggccaccc tcctgaaatg gcttggaacg  
 300  
 gggttttcca ctggtgccct ccccagacga ttgcttgtaa tgggccagtg cctcgccagg  
 360  
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 420  
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 815

<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

Met	Val	Thr	Gly	Gln	Arg	Trp	Arg	His	Ser	Gln	Pro	Phe	Leu	Gly	Pro
1				5					10					15	
Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
			20					25					30		
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
		35					40					45			
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
	50					55					60				
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65					70					75				80	
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 Tyr Lys Pro Gln Asp Val Pro Ala Lys Ala Arg Ser Thr Ser Leu Asn  
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Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His
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Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr
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Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala
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&lt;210&gt; 4551

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4551

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361

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&lt;210&gt; 4552

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4552

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Ser Ala Ala His Cys Pro Val Pro Gly Ile Ser Glu Gly Pro Arg Thr
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Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr
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Gln Arg Thr Trp Glu Ser Gly Cys Gln Arg Trp Ala Ala Gly Arg Ala

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<211> 705

<212> PRT

<213> Homo sapiens

<400> 4554

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Glu	Ile	Arg	Pro	Trp	Phe	Thr	Pro	Arg	Ser	Ile	Tyr	Met	Glu	Ala	Ser
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Thr	Val	Asp	Cys	Asn	Asp	Leu	Gly	Leu	Leu	Thr	Phe	Pro	Ala	Arg	Leu
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Pro	Ala	Asn	Thr	Gln	Ile	Leu	Leu	Leu	Gln	Thr	Asn	Asn	Ile	Ala	Lys
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Ile	Glu	Tyr	Ser	Thr	Asp	Phe	Pro	Val	Asn	Leu	Thr	Gly	Leu	Asp	Leu
				85					90					95	
Ser	Gln	Asn	Asn	Leu	Ser	Ser	Val	Thr	Asn	Ile	Asn	Val	Lys	Lys	Met
			100					105					110		
Pro	Gln	Leu	Leu	Ser	Val	Tyr	Leu	Glu	Glu	Asn	Lys	Leu	Thr	Glu	Leu
			115				120					125			
Pro	Glu	Lys	Cys	Leu	Ser	Glu	Leu	Ser	Asn	Leu	Gln	Glu	Leu	Tyr	Ile
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Asn	His	Asn	Leu	Leu	Ser	Thr	Ile	Ser	Pro	Gly	Ala	Phe	Ile	Gly	Leu
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His	Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Arg	Leu	Gln	Met	Ile
				165					170					175	
Asn	Ser	Lys	Trp	Phe	Asp	Ala	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met	Ile
			180					185					190		
Gly	Glu	Asn	Pro	Ile	Ile	Arg	Ile	Lys	Asp	Met	Asn	Phe	Lys	Pro	Leu
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Ile	Asn	Leu	Arg	Ser	Leu	Val	Ile	Ala	Gly	Ile	Asn	Leu	Thr	Glu	Ile
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Pro	Asp	Asn	Ala	Leu	Val	Gly	Leu	Glu	Asn	Leu	Glu	Ser	Ile	Ser	Phe
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Tyr	Asp	Asn	Arg	Leu	Ile	Lys	Val	Pro	His	Val	Ala	Leu	Gln	Lys	Val
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Val	Asn	Leu	Lys	Phe	Leu	Asp	Leu	Asn	Lys	Asn	Pro	Ile	Asn	Arg	Ile
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Arg	Arg	Gly	Asp	Phe	Ser	Asn	Met	Leu	His	Leu	Lys	Glu	Leu	Gly	Ile
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Asn	Asn	Met	Pro	Glu	Leu	Ile	Ser	Ile	Asp	Ser	Leu	Ala	Val	Asp	Asn
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Leu	Pro	Asp	Leu	Arg	Lys	Ile	Glu	Ala	Thr	Asn	Asn	Pro	Arg	Leu	Ser
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Tyr	Ile	His	Pro	Asn	Ala	Phe	Phe	Arg	Leu	Pro	Lys	Leu	Glu	Ser	Leu
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Leu Pro Leu Ile Ala Pro Glu Ser Phe Pro Ser Asn Leu Asn Val Glu
          420          425          430
Ala Gly Ser Tyr Val Ser Phe His Cys Arg Ala Thr Ala Glu Pro Gln
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Pro Glu Ile Tyr Trp Ile Thr Pro Ser Gly Gln Lys Leu Leu Pro Asn
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Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr
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Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr
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Ser
705

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&lt;210&gt; 4555

&lt;211&gt; 1128

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4555

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<211> 67

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			20					25					30		
Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
		35				40						45			
Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
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&lt;213&gt; Homo sapiens

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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4564

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Ile	Arg	Ser	Gln	Gln	Gln	Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu
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Pro	Asp	Asp	Gln	Thr	Glu	Val	Val	Ile	Tyr	Val	Val	Glu	Arg	Ser	Pro
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Glu	Gln	Ala	Asn	Ile	Lys	Thr	Gln	Leu	Gln	Gln	Leu	Gly	Val	Thr	Leu
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Ser	Met	Thr	Arg	Thr	Glu	Leu	Ser	Pro	Ala	Gln	Ile	Arg	Gln	Leu	Leu
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Gln	Asn	Pro	Pro	Ala	Gly	Val	Asp	Pro	Ile	Ile	Trp	Glu	Gln	Ala	Lys
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Phe	Lys	Glu	Leu	Leu	Arg	Arg	Leu	Lys	Val	Gln	Asp	Gln	Met	Thr	Lys
			180				185					190			
Gln	His	Gln	Thr	Arg	Leu	Asp	Ile	Ile	Ser	Glu	Asp	Ile	Ser	Glu	Leu
			195				200					205			
Gln	Lys	Asn	Gln	Thr	Thr	Ser	Val	Ala	Lys	Ile	Ala	Gln	Tyr	Lys	Arg
			210			215					220				
Lys	Leu	Met	Asp	Leu	Ser	His	Arg	Thr	Leu	Gln	Val	Leu	Ile	Lys	Gln
225					230					235					240
Glu	Ile	Gln	Arg	Lys	Ser	Gly	Tyr	Ala	Ile	Gln	Ala	Asp	Glu	Glu	Gln
				245				250					255		
Leu	Arg	Val	Gln	Leu	Asp	Thr	Ile	Gln	Gly	Glu	Leu	Asn	Ala	Pro	Thr
			260				265					270			
Gln	Phe	Lys	Gly	Arg	Leu	Asn	Glu	Leu	Met	Ser	Gln	Ile	Arg	Met	Gln
			275			280					285				
Asn	His	Phe	Gly	Ala	Val	Arg	Ser	Glu	Glu	Arg	Tyr	Tyr	Ile	Asp	Ala
			290			295					300				
Asp	Leu	Leu	Arg	Glu	Ile	Lys	Gln	His	Leu	Lys	Gln	Gln	Gln	Glu	Gly
305					310					315					320
Leu	Ser	His	Leu	Ile	Ser	Ile	Ile	Lys	Asp	Asp	Leu	Glu	Asp	Ile	Lys
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<211> 2344  
<212> DNA  
<213> Homo sapiens

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<210> 4566

<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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			20					25					30		
Glu	Ile	Leu	Arg	Leu	Arg	Gln	Ser	Glu	Arg	Met	Ser	Gln	Asp	Asp	Phe
		35					40					45			
Gln	Ser	Pro	Pro	Ile	Val	Glu	Leu	Arg	Glu	Lys	Ile	Gln	Pro	Glu	Ile
		50				55					60				
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Ser	Phe	Arg	Lys	Ile	Gly	Asn	Arg	Arg	Arg	Gln	Glu	Arg	Phe	Trp	Tyr

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Cys	Arg	Leu	Ala	Leu	Asn	His	Lys	Val	Leu	His	Tyr	Gly	Asp	Leu	Asp	
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Asp	Asn	Pro	Gln	Gly	Glu	Val	Thr	Phe	Glu	Ser	Leu	Gln	Glu	Lys	Ile	
115								120				125				
Pro	Val	Ala	Asp	Ile	Lys	Ala	Ile	Val	Thr	Gly	Lys	Asp	Cys	Pro	His	
130								135				140				
Met	Lys	Glu	Lys	Ser	Ala	Leu	Lys	Gln	Asn	Lys	Glu	Val	Leu	Glu	Leu	
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210								215				220				
Gln	Ile	Pro	Glu	Ala	Pro	Pro	Pro	Ile	Pro	Lys	Glu	Pro	Ser	Ser	Tyr	
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<210> 4567

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4567

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 <212> PRT  
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 35 40 45  
 Val Gln Gln Arg Glu Leu Ala Val Thr Ser Pro Lys Asp Gly Ser Ile  
 50 55 60  
 Ser Ile Leu Gly Ser Asp Asp Ala Thr Thr Cys His Ile Val Val Leu  
 65 70 75 80  
 Arg His Thr Gly Asn Gly Ala Thr Cys Leu Thr His Cys Asp Gly Thr  
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<210> 4569  
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&lt;210&gt; 4570

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4570

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Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
      35           40           45
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      50           55           60
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65           70           75           80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
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Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
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Leu Gln Ala Ala Arg Ser Leu Pro Ser Ala Gly Gly Ser Arg Gly Arg
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Lys Gly Trp Arg Ala Ala Gly Arg Gln Pro Ser Thr Arg
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&lt;210&gt; 4571

&lt;211&gt; 1084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4571

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 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 4572  
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 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr  
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309

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<211> 103  
<212> PRT  
<213> Homo sapiens

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35 40 45  
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln  
50 55 60  
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His  
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<212> DNA  
<213> Homo sapiens

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

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			20					25					30		
Pro	Ala	Arg	His	Val	Ala	Thr	Ala	Gln	Gly	Glu	Val	Leu	Pro	Pro	Gly
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<210> 4577

<211> 3525

<212> DNA

<213> Homo sapiens

<400> 4577

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<210> 4578  
<211> 1007  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4578

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Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
      35           40           45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
      50           55           60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
65           70           75           80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
      85           90           95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
      100          105          110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
      115          120          125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
      130          135          140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
145          150          155          160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
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Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
      180          185          190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
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Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
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Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225          230          235          240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
      245          250          255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
      260          265          270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
      275          280          285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
      290          295          300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
305          310          315          320
Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
      325          330          335
Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
      340          345          350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355          360          365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
      370          375          380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385          390          395          400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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			565					570				575												
Leu	Arg	His	His	Phe	Glu	Thr	Leu	Thr	Glu	Ser	Pro	Cys	Arg	Ala	Leu									
			580					585				590												
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Pro	Glu	Val	Lys	Leu	Met	Asp	Arg	Gly	Gly	Ser	Gln	Pro	Arg	Ala	Gly									
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785					790					795					800									
Arg	Leu	Thr	Leu	Ser	Ser	Ala	Cys	Asp	Gly	Leu	Leu	Gln	Pro	Pro	Val									
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Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala		
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Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys		880
	885	890
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro		895
	900	905
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser		910
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Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp		925
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Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg		940
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Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys		960
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&lt;210&gt; 4579

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4579

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321

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&lt;210&gt; 4580

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4580

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Tyr Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe		15
	20	25
Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu		30
	35	40
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys		45

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 <212> DNA  
 <213> Homo sapiens

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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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		20						25					30		
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Trp	Gly	Glu	Glu	Tyr	Met	Gly	Tyr	Thr	Asn	Thr	Asp	Asn	Pro	Phe	Gly
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Arg	Ile	Gln	Glu	Asp	Asn	Arg	Leu	Glu	Leu	Gln	Lys	Val	Lys	Gln	Leu
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Arg	Leu	Glu	Arg	Glu	Arg	Glu	Lys	Ala	Met	Arg	Glu	Gln	Glu	Leu	Glu
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Thr	Phe	Leu	Asn	Gly	Leu	Thr	Val	Ala	Asp	Met	Glu	Asp	Leu	Leu	Glu
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Asp	Ile	Gln	Val	Tyr	Met	Glu	Leu	Glu	Gln	Gly	Lys	Asn	Ala	Asp	Phe
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Trp	Arg	Asp	Met	Thr	Thr	Ile	Thr	Glu	Asp	Glu	Ile	Ser	Lys	Leu	Arg
			245						250					255	
Lys	Leu	Glu	Ala	Ser	Gly	Lys	Gly	Pro	Gly	Glu	Arg	Arg	Glu	Gly	Val
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Asn	Ala	Ser	Val	Ser	Ser	Asp	Val	Gln	Ser	Val	Phe	Lys	Gly	Lys	Thr
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Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg
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 <212> PRT  
 <213> Homo sapiens

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 Gln Leu Leu Gln Ile Arg Gln Asp Val Glu Ser Cys Tyr Phe Ala Ala  
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 85 90 95  
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 Ala Asp Leu Ala Leu Gln Met Pro Ser Trp Lys Gly Cys Val Gln Thr  
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 Ser Ile Glu Leu Val Gly Glu Met Ser Glu Val Val Asp Arg Asn Pro  
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 Lys Lys Leu Leu Ser Gln Glu Pro Ser Asn Gly Ile Ser Ser Asp Pro  
    595                                    600                                    605  
 Thr Val Phe Leu Asp Arg Leu Ala Val Ile Phe Arg His Thr Asn Pro  
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 Ile Val Glu Asn Gly Gln Thr His Pro Cys Gln Lys Val Ile Gln Glu  
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[illegible]

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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 4586

&lt;211&gt; 530

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4586

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Ile Leu Asp Leu Ser Glu Ser Gly Leu Cys Arg Leu Glu Glu Val Phe
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Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
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Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
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Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
          100          105          110
His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
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Leu Pro Val Glu Leu Gly Ser Val Thr Thr Leu Lys Ala Leu Asn Leu
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Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
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Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
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Pro Pro Arg Arg Ser Met Val Ala Ser Lys Ile Pro Ser Ala Thr Asp

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Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
465          470          475          480
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Tyr Gln
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&lt;210&gt; 4587

&lt;211&gt; 1723

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4587

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&lt;210&gt; 4588

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4588

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Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
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Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser	Gln
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Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
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	180	185
Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg		190
	195	200
Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln		205
	210	215
Ile Leu Lys Ile Leu Thr Gly Lys Ile Val Val Gly His Ala Ile His		220
225	230	235
Asn Asp Phe Lys Ala Leu Gln Tyr Phe His Pro Lys Ser Leu Thr Arg		240
	245	250
Asp Thr Ser His Ile Pro Pro Leu Asn Arg Lys Ala Asp Cys Pro Glu		255
	260	265
Asn Ala Thr Met Ser Leu Lys His Leu Thr Lys Lys Leu Leu Asn Arg		270
	275	280
Asp Ile Gln Val Gly Lys Ser Gly His Ser Ser Val Glu Asp Ala Gln		285
	290	295
Ala Thr Met Glu Leu Tyr Lys Leu Val Glu Val Glu Trp Glu Glu His		300
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Leu Ala Arg Asn Pro Pro Thr Asp		320
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&lt;210&gt; 4589

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4589

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&lt;210&gt; 4590

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 <212> PRT  
 <213> Homo sapiens

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                   20                  25                  30  
 Gly Val Arg Val Ser Ala Ala Pro Leu Gly Gln Gly Gly Gly His Thr  
           35                  40                  45  
 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln  
       50                  55                  60  
 Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr  
 65                  70                  75                  80  
 Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr  
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 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

<400> 4592  
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Lys Ala Ser Ser Ile Tyr Ser Thr Ala Leu Cys Phe Gly Leu Lys Arg			
	35	40	45
Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys			
	50	55	60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser			
65	70	75	80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln			
	85	90	95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly			
	100	105	110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys			
	115	120	125
Arg Leu Gly Ile His Thr Pro Ala His Val Ala Ser Pro Ser Ala Val			
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Trp Ser Gln Gly Trp Ala Gly Lys			
145	150		

&lt;210&gt; 4593

&lt;211&gt; 4783

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4593

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<210> 4594

<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
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Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
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Ala	Asp	Ser	Ala	Ser	Leu	Ala	Lys	Lys	Lys	Pro	Leu	Phe	Ile	Thr	Thr
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Asp	Ser	Ser	Lys	Leu	Val	Ser	Gly	Val	Leu	Gly	Ser	Ala	Leu	Thr	Ser
			85						90					95	
Gly	Gly	Pro	Ser	Leu	Ser	Ala	Met	Gly	Asn	Gly	Arg	Ser	Ser	Ser	Pro
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Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser	Ser
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Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn	Pro
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Leu	Leu	Lys	Thr	Phe	Ser	Asn	Val	Phe	Gly	Arg	His	Ser	Gly	Gly	Phe
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Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe	Glu
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Ala	Val	Lys	Arg	Phe	Ser	Leu	Asp	Glu	Arg	Ser	Leu	Ala	Cys	Arg	Gln

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Asp	Ser	Asp	Ser	Ser	Thr	Asn	Ser	Asp	Leu	Ser	Asp	Leu	Ser	Asp	Ser					
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Glu	Glu	Gln	Leu	Gln	Ala	Lys	Thr	Gly	Leu	Lys	Gly	Ile	Pro	Glu	His					
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Lys	Lys	Leu	Lys	Gln	Ser	Gly	Glu	Pro	Phe	Leu	Gln	Asp	Gly	Ser	Cys					
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Ile	Asn	Val	Ala	Pro	His	Leu	His	Lys	Cys	Arg	Glu	Cys	Arg	Leu	Glu					
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Arg	Tyr	Arg	Lys	Phe	Lys	Glu	Gln	Glu	Gln	Asp	Asp	Ser	Thr	Val	Ala					
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Cys	Arg	Phe	Phe	His	Phe	Arg	Arg	Leu	Ile	Phe	Thr	Arg	Lys	Gly	Val					
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Leu	Arg	Val	Glu	Gly	Phe	Leu	Ser	Pro	Gln	Gln	Ser	Asp	Pro	Asp	Ala					
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Glu	Thr	Ser	Lys	Tyr	Ile	Leu	Ala	Asn	Val	Gly	Asp	Gln	Phe	Cys	Gln					
		370				375					380									
Leu	Val	Met	Ser	Glu	Lys	Glu	Ala	Met	Met	Met	Val	Glu	Pro	His	Gln					
385					390					395					400					
Lys	Val	Ala	Trp	Lys	Arg	Ala	Val	Arg	Gly	Val	Arg	Glu	Met	Cys	Asp					
				405					410					415						
Val	Cys	Glu	Thr	Thr	Leu	Phe	Asn	Ile	His	Trp	Val	Cys	Arg	Lys	Cys					
			420					425					430							
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Arg	Ser	Glu	Thr	Glu	Glu	Met	Gly	Asp	Glu	Glu	Val	Phe	Ser	Trp	Leu					
		450				455					460									
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Gln	Ile	Ile	Pro	Gly	Thr	Ala	Leu	Tyr	Asn	Ile	Gly	Asp	Met	Val	His					
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Gln	Leu																			

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Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
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Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
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Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
705	710	715
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
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Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
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Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
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Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn		765
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Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
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Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
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Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
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Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
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Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
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Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
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	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
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Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
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Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		1020
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Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

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His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe			
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Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe			
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Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val			
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Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys			
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Ala His Glu Ser Lys Leu Ala Arg Ser			
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&lt;210&gt; 4595

&lt;211&gt; 935

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4595

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&lt;210&gt; 4596

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 <212> PRT  
 <213> Homo sapiens

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<210> 4598

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 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn  
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 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser  
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 <213> Homo sapiens

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 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln  
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 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu  
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 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln  
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&lt;210&gt; 4602

&lt;211&gt; 305

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4602

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Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val	Ala
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Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu	Val
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Glu	Met	Phe	Gln	Gln	Ile	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln	Leu
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Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met	Ala
			165					170						175	
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn	Met
		180						185					190		
Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu



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&lt;210&gt; 4604

&lt;211&gt; 666

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4604

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 Glu Ser Glu Ser Pro Gln Glu Ala Gly Arg Gly His Pro Ser Phe Leu  
 50 55 60  
 Pro Gln Gln Lys Glu Ser Ser Glu Ala Ser Glu Leu Ile Leu Tyr Ser

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Lys	Glu	Val	Glu	Ala	Gly	Pro	Gly	Asp	Gln	Gln	Gly	Asp	Ser	Tyr	Leu
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His	Phe	Pro	Gly	Cys	Ala	Gly	Pro	Thr	Glu	Asp	Glu	Leu	Ser	Leu	Pro
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Glu	Gly	Pro	Ser	Val	Pro	Ser	Ser	Ser	Leu	Pro	Gln	Thr	Pro	Glu	Gln
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Glu	Lys	Phe	Leu	Arg	His	His	Phe	Glu	Thr	Leu	Thr	Glu	Ser	Pro	Cys
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Ala	Gln	Gly	Val	His	Ala	Pro	Ser	Thr	Cys	Ser	Tyr	Met	Glu	Ala	Thr
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Ala	Ser	Ser	Arg	Ala	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Leu	Gly	Asp	Ser
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Glu	Ser	Ala	Leu	Arg	Leu	His	Gly	Ser	Ala	Phe	Arg	Pro	Ser	Leu	Pro
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Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro Val Ala Arg Trp Thr					
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Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser Pro Pro Ser Cys Gly					
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Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp Gly Leu Val Trp Pro					
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Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg Pro His Arg Arg Cys					
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&lt;210&gt; 4605

&lt;211&gt; 2998

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4605

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&lt;210&gt; 4606

&lt;211&gt; 584

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4606

Ile	Glu	His	Lys	Glu	Glu	Asn	Asp	His	Lys	Val	Phe	Tyr	Gly	Gly	Asp
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Leu	Lys	Val	Asp	Cys	Val	Ala	Thr	Gly	Leu	Pro	Asn	Pro	Glu	Ile	Ser
			20					25					30		
Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser	Asp
		35					40					45			
Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly	Thr
	50					55					60				
Leu	Tyr	Phe	Asn	Glu	Val	Gly	Met	Arg	Glu	Glu	Gly	Asp	Tyr	Thr	Cys
65				70					75					80	
Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val	Lys
			85						90					95	
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala	Val
			100						105				110		
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys	Gly
		115						120				125			
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val	Ile
		130				135					140				
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu	Leu
145				150						155				160	
Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu	Val
			165						170					175	
Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val	Asn
		180						185					190		
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr	Val
		195				200					205				
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      210                215                220
Glu Gly Ile Pro Thr Pro Arg Val Leu Trp Ala Phe Pro Glu Gly Val
225                230                235                240
Val Leu Pro Ala Pro Tyr Tyr Gly Asn Arg Ile Thr Val His Gly Asn
      245                250                255
Gly Ser Leu Asp Ile Arg Ser Leu Arg Lys Ser Asp Ser Val Gln Leu
      260                265                270
Val Cys Met Ala Arg Asn Glu Gly Gly Glu Ala Arg Leu Ile Leu Gln
      275                280                285
Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile
      290                295                300
Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
305                310                315                320
Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn
      325                330                335
Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys
      340                345                350
Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly
      355                360                365
Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His Thr Glu Arg Leu
      370                375                380
Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn Lys Gln Tyr His
385                390                395                400
Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys Leu Pro Cys Thr
      405                410                415
Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly
      420                425                430
Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val Ser Leu Leu Asp
      435                440                445
Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe Asp Arg Gly Thr
      450                455                460
Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile
465                470                475                480
Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr Ser Glu Pro Thr
      485                490                495
Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
      500                505                510
Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys
      515                520                525
Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe
      530                535                540
Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp
545                550                555                560
Ala Gly Phe Tyr Lys Cys Met Ala Lys Asn Ile Leu Gly Ser Asp Ser
      565                570                575
Lys Thr Thr Tyr Ile His Val Phe
      580

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&lt;210&gt; 4607

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4607

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 360  
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<210> 4608

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4608

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Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg
			20					25					30		
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
		35					40					45			
Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50					55					60				
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
65					70					75				80	
Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
			85					90						95	
Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp	Asp	Leu	Tyr					
			100					105							

<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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 240  
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 aaaa  
 904

<210> 4610

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

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Pro	Gln	Pro	Pro	Gly	Ala	Ala	Arg	Trp	Ala	Glu	Val	Met	Ala	Arg	Phe
				20				25					30		
Ala	Ala	Arg	Leu	Gly	Ala	Gln	Gly	Arg	Arg	Val	Val	Leu	Val	Thr	Ser
				35				40					45		
Gly	Gly	Thr	Lys	Val	Pro	Leu	Glu	Ala	Arg	Pro	Val	Arg	Phe	Leu	Asp
				50				55				60			
Asn	Phe	Ser	Ser	Gly	Arg	Arg	Gly	Ala	Thr	Ser	Ala	Glu	Ala	Phe	Leu
65					70					75				80	
Ala	Ala	Gly	Tyr	Gly	Val	Leu	Phe	Leu	Tyr	Arg	Ala	Arg	Ser	Ala	Phe
					85					90				95	
Pro	Tyr	Ala	His	Arg	Phe	Pro	Pro	Gln	Thr	Trp	Leu	Ser	Ala	Leu	Arg
					100					105				110	
Pro	Ser	Gly	Pro	Ala	Leu	Ser	Gly	Leu	Leu	Ser	Leu	Glu	Ala	Glu	Glu
					115					120				125	
Asn	Ala	Leu	Pro	Gly	Phe	Ala	Glu	Ala	Leu	Arg	Ser	Tyr	Gln	Glu	Ala
					130					135				140	
Ala	Ala	Ala	Gly	Thr	Phe	Leu	Ala	Val	Glu	Phe	Thr	Thr	Leu	Ala	Asp
145						150				155				160	
Tyr	Leu	His	Leu	Leu	Gln	Ala	Ala	Ala	Gln	Ala	Leu	Asn	Pro	Leu	Gly
					165					170				175	
Pro	Ser	Ala	Met	Phe	Tyr	Leu	Ala	Ala	Ala	Val	Ser	Asp	Phe	Tyr	Val
					180					185				190	
Pro	Val	Ser	Glu	Met	Pro	Glu	His	Lys	Ile	Gln	Ser	Ser	Gly	Gly	Pro

	195		200		205
Leu	Gln Gly Lys Val Gln	Leu Glu Asp Ile Leu	His His Leu Glu Lys		
210		215		220	
Glu Glu Ile Asn Pro	Leu Ala Thr Thr Glu Glu	Gln Leu Cys Leu Val			
225		230		235	240
Leu Ile Pro Ala Ser	Thr Val Lys Thr Gly				
	245		250		

&lt;210&gt; 4611

&lt;211&gt; 1946

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4611

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 1920  
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 1946

&lt;210&gt; 4612

&lt;211&gt; 532

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4612

Met	Arg	Pro	Asp	Trp	Lys	Ala	Gly	Ala	Gly	Pro	Gly	Gly	Pro	Pro	Gln
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Lys	Pro	Ala	Pro	Ser	Ser	Gln	Arg	Lys	Pro	Pro	Ala	Arg	Pro	Ser	Ala
			20					25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
			35				40						45		
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
			50			55				60					
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70				75					80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85					90					95		
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
			100					105					110		
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
		115					120					125			
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
		130				135					140				
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
145					150					155					160
Glu	Phe	Gln	His	Ala	Met	Gly	Gly	Val	Pro	Ala	Trp	Ala	Glu	Thr	Thr

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 180 185 190  
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 195 200 205  
 Arg Gly Ile Leu Lys Met Lys Asn Cys Gln His Ala Asn Ala Glu Arg  
 210 215 220  
 Pro Thr Val Ala Arg Ile Ser Ser Val Gln Phe His Pro Gly Ala Gln  
 225 230 235 240  
 Ile Val Met Val Ala Gly Leu Asp Asn Ala Val Ser Leu Phe Gln Val  
 245 250 255  
 Asp Gly Lys Thr Asn Pro Lys Ile Gln Ser Ile Tyr Leu Glu Arg Phe  
 260 265 270  
 Pro Ile Phe Lys Ala Cys Phe Ser Ala Asn Gly Glu Glu Val Leu Ala  
 275 280 285  
 Thr Ser Thr His Ser ~~Asp~~ Val Leu Tyr Val Tyr Asp Met Leu Ala Gly  
 290 295 300  
 Lys Leu Ile Pro Val His Gln Val Arg Gly Leu Lys Glu Lys Ile Val  
 305 310 315 320  
 Arg Ser Phe Glu Val Ser Pro Asp Gly Ser Phe Leu Leu Ile Asn Gly  
 325 330 335  
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 340 345 350  
 Gly Ser Met Lys Ile Asn Gly Arg Val Ala Ala Ser Thr Phe Ser Ser  
 355 360 365  
 Asp Ser Lys Lys Val Tyr Ala Ser Ser Gly Asp Gly Glu Val Tyr Val  
 370 375 380  
 Trp Asp Val Asn Ser Arg Lys Cys Leu Asn Arg Phe Val Asp Glu Gly  
 385 390 395 400  
 Ser Leu Tyr Gly Leu Ser Ile Ala Thr Ser Arg Asn Gly Gln Tyr Val  
 405 410 415  
 Ala Cys Gly Ser Asn Cys Gly Val Val Asn Ile Tyr Asn Gln Asp Ser  
 420 425 430  
 Cys Leu Gln Glu Thr Asn Pro Lys Pro Ile Lys Ala Ile Met Asn Leu  
 435 440 445  
 Val Thr Gly Val Thr Ser Leu Thr Phe Asn Pro Thr Thr Glu Ile Leu  
 450 455 460  
 Ala Ile Ala Ser Glu Lys Met Lys Glu Ala Val Arg Leu Val His Leu  
 465 470 475 480  
 Pro Ser Cys Thr Val Phe Ser Asn Phe Pro Val Ile Lys Asn Lys Asn  
 485 490 495  
 Ile Ser His Val His Thr Met Asp Phe Ser Pro Arg Ser Gly Tyr Phe  
 500 505 510  
 Ala Leu Gly Asn Glu Lys Gly Lys Ala Leu Met Tyr Arg Leu His His  
 515 520 525  
 Tyr Ser Asp Phe  
 530

&lt;210&gt; 4613

&lt;211&gt; 454

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4613

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&lt;210&gt; 4614

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35					40					45			
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
	50					55					60				
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65					70					75				80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
			85						90					95	
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
			100					105						110	
Ser	Val	Ser	Leu	Leu											
			115												

&lt;210&gt; 4615

&lt;211&gt; 1350

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4615

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 attttgcaaa aagtgtgaa ataacaggag ttcgttcaga gaccatttct gtgcctcaag  
 120  
 aaataaaagc gttgcagctg tggaaggaga tagaaactcg acatcctgga ttggctgatg  
 180  
 ttagaaatca gataatattt gctgttcgtc aagaatatgt cgagcttgga gatcagctcc  
 240



tcgtgcttca gcctggagac gaaattgccg ttatcccccc cattagtga ggatagtgt  
 300  
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 360  
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 420  
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 480  
 agcttagaat atgaagcata tctacccatg gcggaaaatg aagtcagaaa gattttagt  
 540  
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 720  
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 780  
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 960  
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 1200  
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 1320  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1350

&lt;210&gt; 4616

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4616

Met	Ser	Ser	Leu	Glu	Ile	Ser	Ser	Ser	Cys	Phe	Ser	Leu	Glu	Thr	Lys
1				5					10					15	
Leu	Pro	Leu	Ser	Pro	Pro	Leu	Val	Glu	Asp	Ser	Ala	Phe	Glu	Pro	Ser
			20					25					30		
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn
		35				40					45				
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

65	70								75				80			
Asn	Phe	Glu	Gly	Lys	Lys	Val	Ile	Ser	Leu	Glu	Tyr	Glu	Ala	Tyr	Leu	
				85					90					95		
Pro	Met	Ala	Glu	Asn	Glu	Val	Arg	Lys	Ile	Cys	Ser	Asp	Ile	Arg	Gln	
			100					105					110			
Lys	Trp	Pro	Val	Lys	His	Ile	Ala	Val	Phe	His	Leu	Leu	Gly	Leu	Val	
		115					120						125			
Pro	Val	Ser	Glu	Ala	Ser	Thr	Val	Ile	Ala	Val	Ser	Ser	Ala	His	Arg	
	130					135					140					
Ala	Ala	Ser	Leu	Glu	Ala	Val	Ser	Tyr	Ala	Ile	Asp	Ser	Leu	Lys	Ala	
145					150					155					160	
Lys	Val	Pro	Ile	Trp	Lys	Lys	Glu	Ile	Tyr	Glu	Glu	Ser	Ser	Thr	Trp	
			165						170					175		
Lys	Gly	Asn	Lys	Glu	Cys	Phe	Trp	Ala	Ser	Asn	Ser					
		180						185								

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<210> 4617
<211> 2266
<212> DNA
<213> Homo sapiens
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120
tgggtggggct cagtggggtc ttcccgttgc ttgtcattcc cctagagatg gggaccatgc
180
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240
ctcttgggca atgtgtttct gcctctgctg cccgaagcct gggcctacac gtgcagcgcc
300
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360
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420
accagccagg cccccaacaa agacccact gctgctgccg ccgcaactca tggaggccac
480
tgtctggccc agccgactgc agagcccggc ctccggtgccg tggtcggag catcaaagtc
540
agcggctacc tcaacctgct ggccaacacc atcgataact tcaccacagg gctggctgtg
600
gctgccagct tccttgtgag caagaagatc gggctcctga caaccatggc catcctcctg
660
catgagatcc cccatgaggt gggcgacttt gccatcctgc tccgggccgg ctttgaccga
720
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780
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840
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900
gaggaccctg ggcgctccct gcagcagctg cttctgctct gtgcgggcat cgtggtaatg
960

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 1080  
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 2160  
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 2266

&lt;210&gt; 4618

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4618

Met Phe Leu Asp Ser Lys Glu Glu Gly Thr Ser Gln Ala Pro Asn Lys  
 1 5 10 15  
 Asp Pro Thr Ala Ala Ala Ala Leu Asn Gly Gly His Cys Leu Ala

20 25 30  
 Gln Pro Thr Ala Glu Pro Gly Leu Gly Ala Val Val Arg Ser Ile Lys  
 35 40 45  
 Val Ser Gly Tyr Leu Asn Leu Leu Ala Asn Thr Ile Asp Asn Phe Thr  
 50 55 60  
 His Gly Leu Ala Val Ala Ala Ser Phe Leu Val Ser Lys Lys Ile Gly  
 65 70 75 80  
 Leu Leu Thr Thr Met Ala Ile Leu Leu His Glu Ile Pro His Glu Val  
 85 90 95  
 Gly Asp Phe Ala Ile Leu Leu Arg Ala Gly Phe Asp Arg Trp Ser Ala  
 100 105 110  
 Ala Lys Leu Gln Leu Ser Thr Ala Leu Gly Gly Leu Leu Gly Ala Gly  
 115 120 125  
 Phe Ala Ile Cys Thr Gln Ser Pro Lys Gly Val Glu Glu Thr Ala Ala  
 130 135 140  
 Trp Val Leu Pro Phe Thr Ser Gly Gly Phe Leu Tyr Ile Ala Leu Val  
 145 150 155 160  
 Asn Val Leu Pro Asp Leu Leu Glu Glu Glu Asp Pro Trp Arg Ser Leu  
 165 170 175  
 Gln Gln Leu Leu Leu Leu Cys Ala Gly Ile Val Val Met Val Leu Phe  
 180 185 190  
 Ser Leu Phe Val Asp  
 195

<210> 4619  
 <211> 539  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 240  
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 300  
 tggcccccat gatgttgggg acatgtgcag acctgtgggt ggtttagttg ttgcttaata  
 360  
 gggccccaag aggagtcatt gtcctttctt gtgtcctatg ggtgagtcgg caaccactct  
 420  
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 539

<210> 4620  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 4620

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Met Gly Thr Thr Cys Leu Leu Phe Leu Pro Ser Thr Ser Arg Pro Met
 1           5           10           15
Thr Lys Phe His Arg Leu Phe Leu Leu Pro Thr Gly Tyr Gly Gln Gly
          20           25           30
Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
          35           40           45
Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
          50           55           60
Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
65           70           75           80
Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
          85           90           95
Tyr Leu Asn Gln Glu Val Pro
          100

```

&lt;210&gt; 4621

&lt;211&gt; 2588

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4621

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120
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180
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240
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360
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480
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960

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1080  
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1140  
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1320  
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1380  
acaccagcg tggtgccagg actggatccc ggcacacaga ccagctcaca ggagttcttg  
1440  
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2160  
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2220  
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2340  
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2580

ccccccct

2588

&lt;210&gt; 4622

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4622

```

Met Ser Gly Ser Asp Gly Gly Leu Glu Glu Glu Pro Glu Leu Ser Ile
 1           5           10           15
Thr Leu Thr Leu Arg Met Leu Met His Gly Lys Glu Val Gly Ser Ile
      20           25           30
Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
      35           40           45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
      50           55           60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
65           70           75           80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
      85           90           95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
      100          105          110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
      115          120          125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
      130          135          140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
145          150          155          160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
      165          170          175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
      180          185          190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
      195          200          205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
      210          215          220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
225          230          235          240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
      245          250          255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
      260          265          270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
      275          280          285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
      290          295          300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
305          310          315          320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
      325          330          335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
      340          345          350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

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 2160  
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 2220

&lt;210&gt; 4624

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4624

Met	Lys	Ser	Lys	Lys	Lys	Val	Glu	Gln	Pro	Val	Ile	Glu	Glu	Pro	Ala
1				5					10					15	
Leu	Lys	Arg	Lys	Lys	Lys	Lys	Lys	Arg	Lys	Glu	Ser	Gly	Val	Ala	Gly
			20					25					30		
Asp	Pro	Trp	Lys	Glu	Glu	Thr	Asp	Thr	Asp	Leu	Glu	Val	Val	Leu	Glu
			35				40					45			
Lys	Lys	Gly	Asn	Met	Asp	Glu	Ala	His	Ile	Asp	Gln	Val	Arg	Arg	Lys
			50			55				60					
Ala	Leu	Gln	Glu	Glu	Ile	Asp	Arg	Glu	Ser	Gly	Lys	Thr	Glu	Ala	Ser
65					70				75					80	
Glu	Thr	Arg	Lys	Trp	Thr	Gly	Thr	Gln	Phe	Gly	Gln	Trp	Asp	Thr	Ala
			85					90					95		
Gly	Phe	Glu	Asn	Glu	Asp	Gln	Lys	Leu	Lys	Phe	Leu	Arg	Leu	Met	Gly

			100					105					110			
Gly	Phe	Lys	Asn	Leu	Ser	Pro	Ser	Phe	Ser	Arg	Pro	Ala	Ser	Thr	Ile	
			115					120				125				
Ala	Arg	Pro	Asn	Met	Ala	Leu	Gly	Lys	Lys	Ala	Ala	Asp	Ser	Leu	Gln	
			130					135				140				
Gln	Asn	Leu	Gln	Arg	Asp	Tyr	Asp	Arg	Ala	Met	Ser	Trp	Lys	Tyr	Ser	
			145			150				155					160	
Arg	Gly	Ala	Gly	Leu	Gly	Phe	Ser	Thr	Ala	Pro	Asn	Lys	Ile	Phe	Tyr	
				165					170						175	
Ile	Asp	Arg	Asn	Ala	Ser	Lys	Ser	Val	Lys	Leu	Glu	Asp				
			180					185								

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<210> 4625
<211> 334
<212> DNA
<213> Homo sapiens
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120
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180
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240
ctcctgcctg gggacaggaa gcccctgtac cattatgggc ggggcatgaa tcccgcgtgac
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334
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<210> 4626
<211> 111
<212> PRT
<213> Homo sapiens
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<400> 4626																
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Asp	Met	Gln	Ala	Leu	Arg	Arg	Glu	Glu	Glu	Arg	Arg	Gln	Ala	Glu	Arg	
			20					25					30			
Glu	Gln	Glu	Tyr	Lys	Arg	Lys	Gln	Leu	Glu	Glu	Gln	Arg	Gln	Ser	Glu	
		35					40					45				
Arg	Leu	Gln	Arg	Gln	Leu	Gln	Gln	Glu	His	Ala	Tyr	Leu	Lys	Ser	Leu	
	50				55						60					
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Leu	Gln	Lys	Gln	Gln	Gln	Gln	Gln	
65				70						75					80	
Leu	Leu	Pro	Gly	Asp	Arg	Lys	Pro	Leu	Tyr	His	Tyr	Gly	Arg	Gly	Met	
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Asn	Pro	Ala	Asp	Lys	Pro	Ala	Trp	Ala	Arg	Glu	Gly	Glu	Glu	Arg		
			100					105					110			

<210> 4627  
<211> 1736

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4627

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120  
gtgcacgccc ggagtttga gctcttcca tcaagtggac ctgattttgg aggattagga  
180  
gaagaagctg aatttgttga agttgagcct gaagctaaac aggaaattct tgaaaacaaa  
240  
gatgtggttg ttcaacatgt tcattttgat ggacttgga ggactaaaga tgatatcatc  
300  
atattgtgaaa ttggagatgt tttcaaggcc aaaaacctaa ttgaggtaat gcggaaatct  
360  
catgaagccc gtgaaaaatt gctccgtctt ggaattttta gacaagtga tgttttgatt  
420  
gacacatgtc aaggtgatgg cgcacttcca aatgggttag acgttacctt tgaagtaact  
480  
gaattgagga gattaacggg cagttataac accatgggtg ggaacaatga aggcagtatg  
540  
gtacttggcc tcaagcttcc taatcttctt ggctcgtgcag aaaagggtgac ctttcagttt  
600  
tcctatggaa caaaagaaac ttcgtatggc ctgtccttct tcaaaccacg gcccggaac  
660  
ttcgaaagaa atttctctgt aaacttatat aaagttactg gacagttccc ttggagctca  
720  
ctgctgggaga cggacagagg aatgtcagct gactacagtt tcccatatg gaagaccagc  
780  
cacactgtca agtgggaagg cgtatggcga gaactgggct gcctctcaag gacggcgta  
840  
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960  
gaactggcag gctacactgg cggggatgtg agcttcatca aagaagattt tgaacttcag  
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ttgaacaagc aactcatatt tgattcagtt ttttcagcgt ctttctgggg cggaatgttg  
1080  
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1260  
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1320  
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1380  
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1440  
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1500

gctgggataa ggttcctgta gccgacaccc ctacaggaga agctctggga ctggggcagc  
 1560  
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 1620  
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<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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Pro	Asp	Phe	Gly	Leu	Gly	Glu	Glu	Ala	Glu	Phe	Val	Glu	Val	Glu	
			20				25				30				
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
		35				40					45				
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
	50					55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65					70					75					80
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
			85					90						95	
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
			100					105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
		115					120					125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
	130					135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
145					150					155					160
Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
			165					170						175	
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
		180					185						190		
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
	195						200					205			
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
	210					215					220				
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225					230					235					240
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
			245					250						255	
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
		260					265						270		
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
		275					280					285			
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
	290					295					300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly

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<210> 4629
<211> 706
<212> DNA
<213> Homo sapiens
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120
agcaccgcga ttgcttcggc cctagtgcag gggcagcacg tgcgcaactga accctggagt
180
cctgatctct agcctagctc aaagcctcca ccaggatcgg gtggcagctt ccatttgagg
240
ccattttctag gccagcggcc cagctgccag cttcacgtct cctgagttgg gggatctctg
300
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360
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420
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480
tgcccccaat atcctccctt gccctctatc tttcctatth gagggaagac tgacaccctc
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<210> 4630

<211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 4630

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Leu	Gly	Gly	Pro	Pro	Glu	Trp	Gly	Glu	Leu	Arg	Ala	Asp	Ser	Ser	Ser
			20					25					30		
Arg	Asp	Gln	Gly	Ala	Leu	Ser	Leu	Ser	Arg	Met	Gly	Arg	Asp	Ala	Ser
		35					40					45			
Ser	Trp	Ala	Leu	Arg	Val	Ser	Val	Phe	Pro	Gln	Ile	Gly	Lys	Met	Arg
	50					55				60					
Gly	Arg	Gly	Gly	Tyr	Trp	Gly	Gln	Ala	Ser	Ala	Gln	Pro	Trp	Val	Leu
65				70						75				80	
Leu	Glu	Pro	Gly	Leu	Glu	Pro	Glu	Val	Gly	Arg	Val	Ser	Lys	Leu	Ser
			85						90					95	
Ser	Trp	Ile	Pro	Ile	Cys	Arg	Thr	Ala	Pro	Arg	Thr	Arg	Ser	Gly	Val
			100					105					110		
Arg	Ala	His	Pro	Leu	Ala	Arg	Ile	Leu	Gly	Ser	Leu	Gly	His	Lys	Ala
		115					120					125			
Gly	Gln	Gly	Thr	Arg	Asp	Pro	Pro	Thr	Gln	Glu	Thr				
	130					135					140				

<210> 4631  
 <211> 2756  
 <212> DNA  
 <213> Homo sapiens

<400> 4631

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 gagtcggccg gctgggactt gcagatcgcg ctagcgagct tttatgagga cggaggggat  
 180  
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 240  
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 300  
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 360  
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 420  
 gccaaagagc atggagctgt agctgtggag cgagtgacca agagccctgg agagaccagt  
 480  
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 540  
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 600  
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 660  
 aatgccaggt ttctggagtc tatccgcaga ggggaggtgc cagcagagct tcggaggcta  
 720

gctcacggtg gacaggtgaa cttggatatg gaggaccatc gggacgagga ctttgtgaag  
780  
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840  
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900  
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1020  
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1080  
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1380  
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1440  
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1680  
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1740  
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1860  
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1920  
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1980  
cctcctaagt gagttcagaa tcagggtatc ttgccctata agataaacag tcaaaatgcc  
2040  
accgagctgt tcattagtga tgtgtggcaa atcaaatcaa ctgttgaaga aggggtgagt  
2100  
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2160  
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2220  
tgacctgctg acttgtgact tgcagaaaca taggcagtag tctagcctg gtaaagaccc  
2280  
tccaccaccc ctataagttt gattgctatg cagggttggg agaggaggcc tattgggctc  
2340

ttggatggaa ccctttcccg tattaacaa accagagaca gaatcagtgc tgactcagga  
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 2580  
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 2640  
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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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Gly	Ala	Glu	Glu	Asp	Arg	Ala	Arg	Phe	Phe	Leu	Glu	Ser	Ala	Gly	Trp
			20					25					30		
Asp	Leu	Gln	Ile	Ala	Leu	Ala	Ser	Phe	Tyr	Glu	Asp	Gly	Gly	Asp	Glu
		35					40					45			
Asp	Ile	Val	Thr	Ile	Ser	Gln	Ala	Thr	Pro	Ser	Ser	Val	Ser	Arg	Gly
		50				55					60				
Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
65					70					75				80	
Asp	Gln	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Gly	Gln	Arg	Ser	Arg	Phe	
			85					90					95		
Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
			100					105					110		
Arg	Lys	Lys	Ser	Pro	Asn	Glu	Leu	Val	Asp	Asp	Leu	Phe	Lys	Gly	Ala
		115				120					125				
Lys	Glu	His	Gly	Ala	Val	Ala	Val	Glu	Arg	Val	Thr	Lys	Ser	Pro	Gly
		130				135					140				
Glu	Thr	Ser	Lys	Pro	Arg	Pro	Phe	Ala	Gly	Gly	Gly	Tyr	Arg	Leu	Gly
145				150					155					160	
Ala	Ala	Pro	Glu	Glu	Ser	Ala	Tyr	Val	Ala	Gly	Glu	Lys	Arg	Gln	
			165					170						175	
His	Ser	Ser	Gln	Asp	Val	His	Val	Val	Leu	Lys	Leu	Trp	Lys	Ser	Gly
			180					185					190		
Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
		195				200						205			
Ala	Gln	Phe	Leu	Glu	Ser	Ile	Arg	Arg	Gly	Glu	Val	Pro	Ala	Glu	Leu
		210				215					220				
Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
225				230					235					240	
Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
			245					250					255		
Gly	Glu	Gly	Gln	Lys	Leu	Gly	Ser	Thr	Ala	Pro	Gln	Val	Leu	Ser	Thr



260							265					270				
Ser	Ser	Pro	Ala	Gln	Gln	Ala	Glu	Asn	Glu	Ala	Lys	Ala	Ser	Ser	Ser	
		275					280					285				
Ile	Leu	Ile	Asp	Glu	Ser	Glu	Pro	Thr	Thr	Asn	Ile	Gln	Ile	Arg	Leu	
	290					295					300					
Ala	Asp	Gly	Gly	Arg	Leu	Val	Gln	Lys	Phe	Asn	His	Ser	His	Arg	Ile	
305					310					315					320	
Ser	Asp	Ile	Arg	Leu	Phe	Ile	Val	Asp	Ala	Arg	Pro	Ala	Met	Ala	Ala	
				325					330				335			
Thr	Ser	Phe	Ile	Leu	Met	Thr	Thr	Phe	Pro	Asn	Lys	Glu	Leu	Ala	Asp	
			340					345				350				
Glu	Ser	Gln	Thr	Leu	Lys	Glu	Ala	Asn	Leu	Leu	Asn	Ala	Val	Ile	Val	
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Gln	Arg	Leu	Thr													
	370															

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<210> 4633
<211> 873
<212> DNA
<213> Homo sapiens
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<400> 4633  
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120  
ctgcctccag acgctggcac tgaggggggtc caccgtcagg cactcagtca ggctgctcag  
180  
gagctctttc ttcattctcag ggggacagct aggggtggct ctggacagga aagaagggaa  
240  
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300  
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360  
gtccagaagt ggggaagaagt ccttggggcc aatcatgccg aagcccttgg taagggtggg  
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480  
cagcacaggc agcatgatcc ccagccacac tttcagtccc tcgggtgaggt tggcaaaacc  
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660  
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720  
caacatggtg aacagacagt gggccctggg tcaagcaggt ttgccaacc tcaactgaggg  
780  
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<210> 4634

<211> 242  
 <212> PRT  
 <213> Homo sapiens

<400> 4634

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      20           25           30
Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
      35           40           45
Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
      50           55           60
Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
      65           70           75           80
Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
      85           90           95
Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
      100          105          110
Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
      115          120          125
Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
      130          135          140
Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
      145          150          155          160
Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
      165          170          175
Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
      180          185          190
Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
      195          200          205
Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
      210          215          220
Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
      225          230          235          240
Lys Leu

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<210> 4635  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 4635

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120
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180
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 Lys Glu Val Lys Trp Gly Pro Arg Lys Ala Gly Gly Val Trp Ala  
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&lt;210&gt; 4638

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<400> 4638

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Arg Leu Phe Ser Ser Ser Leu Val Val Val Ser His Thr Lys Pro
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Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
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Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
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Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
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Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
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Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
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His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
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Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
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Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
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&lt;400&gt; 4640

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      20           25           30
Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
      35           40           45
Asp Leu Ser Ser Leu Gln Pro Pro Pro Arg Leu Lys Arg Phe Ser
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His Leu Ser Leu Pro Ser Ser
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&lt;210&gt; 4641

&lt;211&gt; 1873

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4641

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&lt;210&gt; 4642

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4642

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Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala	Ser
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Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu	Met
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<211> 1125

<212> DNA

<213> Homo sapiens

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<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly	Gly	Arg	Ala
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Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu	Cys	Asp	Val	Thr
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Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
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Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala	Gly	His	His	Pro	Pro	Pro
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<210> 4646

<211> 358

<212> PRT

<213> Homo sapiens

<400> 4646

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Ala	Leu	Gln	Leu	His	Pro	Asp	Arg	Asn	Pro	Asp	Asp	Pro	Gln	Ala	Gln
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Glu	Lys	Phe	Gln	Asp	Leu	Gly	Ala	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Ser
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Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly	Glu	Glu	Gly	Leu	Lys	Asp
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Val	Tyr	Ala	Gly	Asn	Phe	Val	Glu	Val	Val	Arg	Asn	Lys	Pro	Val	Ala
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Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg	Phe	Gln	Met	Thr	Gln	Glu	Val	Val
			180					185					190		
Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys	Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu
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Phe	Arg	Ile	Lys	Val	Val	Lys	His	Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp
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Asp	Leu	Tyr	Thr	Asn	Val	Thr	Ile	Ser	Leu	Val	Glu	Ser	Leu	Val	Gly
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		275					280					285			
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290                                      295                                      300  
 Gly Leu Pro Asn Phe Asp Asn Asn Asn Ile Lys Gly Ser Leu Ile Ile  
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 Thr Phe Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg  
                                     325                                      330                                      335  
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 Asn Gly Leu Gln Gly Tyr  
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&lt;210&gt; 4647

&lt;211&gt; 791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4647

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&lt;210&gt; 4648

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4648

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Thr	Leu	Ala	Ala	Leu	Thr	Gly	Ser	Thr	Ile	Ser	Asn	Thr	Leu	Lys	Glu	
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Asp	Gln	Ala	Ala	Asn	Thr	Ser	Cys	Gly	Leu	Pro	Leu	Lys	Met	Leu	Arg	
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Pro	Pro	Gly	Gly	Ser	Gly	Ser	Ser	Ala	Thr	Arg	Ser	Leu	Phe	Gly	Gly	
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<210> 4649

<211> 3276

<212> DNA

<213> Homo sapiens

<400> 4649

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
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Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
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Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
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Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
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Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
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Ala	Ser	Met	Thr	Glu	Thr	Gln	Ile	Asp	Glu	Thr	Arg	Met	Gly	Tyr	Lys



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Ala	Asn	Ile	Glu	Pro	Met	Tyr	Gln	Tyr	Ser	Leu	Thr	Trp	Phe	Ile	Asn
				165					170					175	
Leu	Tyr	Met	His	Ser	Leu	Thr	His	Ser	Thr	Lys	Ser	Glu	Glu	Leu	Asn
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Leu	Arg	Ile	Lys	Tyr	Ile	Ile	Asp	His	Phe	Thr	Leu	Ser	Ile	Tyr	Asn
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Asn	Val	Cys	Arg	Ser	Leu	Phe	Glu	Lys	Asp	Lys	Leu	Leu	Phe	Ser	Leu
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Lys	Met	Val	Ile	Leu	Arg	Cys	Leu	Arg	Pro	Asp	Lys	Met	Val	Pro	Ala
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Val	Arg	Glu	Phe	Ile	Ala	Glu	His	Met	Gly	Lys	Leu	Tyr	Ile	Glu	Ala
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Pro	Thr	Phe	Asp	Leu	Gln	Gly	Ser	Tyr	Asn	Asp	Ser	Ser	Cys	Cys	Ala
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Pro	Leu	Ile	Phe	Val	Leu	Ser	Pro	Ser	Ala	Asp	Pro	Met	Ala	Gly	Leu
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Ile	Ser	Leu	Gly	Gln	Gly	Gln	Gly	Pro	Ile	Ala	Ala	Lys	Met	Ile	Asn
			405						410					415	
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Ala	Ala	Ser	Trp	Met	Pro	Thr	Leu	Glu	Lys	Ile	Cys	Glu	Glu	Val	Ile
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Arg	Arg	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Met	Phe	Tyr	Cys	Lys	Glu	Ile		
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Glu	Glu	Asp	Tyr	Tyr	Ser	Leu	Ala	Pro	Gly	Asp	Thr	Tyr	Tyr	Ile	Pro		
		610				615					620						
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<210> 4651

<211> 869

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4651

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 480  
 tccaggagaa agatgttaac acccactttc cattttacca ttctggaaga tttcttagat  
 540  
 atcatgaatg aacaagcaaa tatattggtt aagaaacttg aaaaacacat taaccaagaa  
 600  
 gcatttaact gcttttttta catcactcct tgtgccttag atatcatctg tgaaacagct  
 660  
 atggggaaga atattggtgc tcaaagtaat gatgattccg agtatgtccg tgcagtttat  
 720  
 agaatgagtg agatgatatt tccaagaata aagatgcctt ggctttggct tgatctctgg  
 780  
 taccttatgt ttaaagaagg atgggaacac aaaaagagcc ttaagatcct acatactttt  
 840  
 acccacagtg tcatcccgga acggggccaa  
 869

&lt;210&gt; 4652

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4652

Xaa	Ala	Arg	Thr	Phe	Pro	Glu	Cys	Thr	Pro	Arg	Pro	Pro	Ala	Gly	Ala
1				5				10						15	
Met	Ala	Gly	Leu	Trp	Leu	Gly	Leu	Val	Trp	Gln	Lys	Leu	Leu	Leu	Trp
		20						25					30		
Gly	Ala	Ala	Ser	Ala	Val	Ser	Leu	Ala	Gly	Ala	Ser	Leu	Val	Leu	Ser
		35					40					45			
Leu	Leu	Gln	Arg	Val	Ala	Ser	Tyr	Ala	Arg	Lys	Trp	Gln	Gln	Met	Arg
		50				55				60					
Pro	Ile	Pro	Thr	Val	Ala	Arg	Ala	Tyr	Pro	Leu	Val	Gly	His	Ala	Leu
65				70					75					80	
Leu	Met	Lys	Pro	Asp	Gly	Arg	Glu	Phe	Phe	Gln	Gln	Ile	Ile	Glu	Tyr
			85					90						95	
Thr	Glu	Glu	Tyr	Arg	His	Met	Pro	Leu	Leu	Lys	Leu	Trp	Val	Gly	Pro

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<210> 4653
<211> 1276
<212> DNA
<213> Homo sapiens
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120
gtttgaacct ctaacaaaaa ggaacgaaga tgccgaggag cctgcctacg gagacacggc
180
cagtaacgga gatccccaga tccacgtggg actcctgcgc gacagtggca gcgagtgtct
240
cctcgtgcac gtgctgcagc tgaagaacct ggcggggctg gcggtgaagg aagactgcaa
300
agtccacatc cgagtctatt tgccccact tcggtggata gcggtgtag caactgcacc
360
cagaccagcc ctccgtacct agagccctgt tgcattggta tcgactccat cctggggcac
420
ccatttgctg ctcaggcagg gccttacagc cccgagaaat ttcagccctc gcctcttaag
480
gttgataagg aaaccaacac ggaagatctc tttctggaag aagcagccag cctcgtgaag
540
gagcggccca gccgccgggc ccgagggtcg ccttttgttc ggagtggcac gattgtccgt
600
tccagacat tctcgcttgg agcacgaagc cagtatgttt gcagacttta tcgtagtgac
660
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agcgacagtt caacgctgcc ccggaagtcc ccctttgtcc gaaatacttt ggaaagacga  
 720  
 acccttcgct ataagcagtc atgcaggtct tccctggctg agctcatggc ccgcacctcc  
 780  
 ctggacttgg agctggatct ccaggcgtcg agaacacggc agaggcagct gaatgaggag  
 840  
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 900  
 gacctccac cctgggtgct tcgggacgag cggctccgtg gcctgctgcg ggaggccgag  
 960  
 cggcagacaa gacagaccaa acttgactac cgtcatgagc aggcggctga gaagatgctg  
 1020  
 aagaaggcct ccaaggagat ctaccagctg cgtgggcaga gccacaaaga gcccatccaa  
 1080  
 gtgcagacct ttagggagaa gatagcattc ttcacaaggc caaggatcaa catacctcct  
 1140  
 ctcccagcgg acgacgtctg atggagtgcg ttgtgcacat gaagtattta tccacctgtt  
 1200  
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 1260  
 ttaatatata catttt  
 1276

&lt;210&gt; 4654

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4654

Met	Gly	Ile	Asp	Ser	Ile	Leu	Gly	His	Pro	Phe	Ala	Ala	Gln	Ala	Gly
1				5					10				15		
Pro	Tyr	Ser	Pro	Glu	Lys	Phe	Gln	Pro	Ser	Pro	Leu	Lys	Val	Asp	Lys
			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40						45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
		50				55					60				
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65					70				75					80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
			85					90						95	
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100					105					110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115				120						125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
		130				135					140				
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145					150				155					160	
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165					170						175	
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180					185					190			
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met



130  
Gly Arg Gln His His Gly Arg Pro  
145 150

140

<210> 4657  
<211> 723  
<212> DNA  
<213> Homo sapiens

<400> 4657  
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120  
gagtcaggcc tagggaaatc caccctcatc aacagcctct tcctcaccaa cctctatgag  
180  
gatcgccagg tgccagaggc cagtgtctgc ttgacacaga ccctggccat tgagcgccgg  
240  
ggcgtagaga ttgaggaagg ggggtgtgaaa gtgaagctga cccttgtgga cacacctggc  
300  
tttggggact cagtggactg ctctgactgc tggcttcggg tggtgaaatt catcgaggag  
360  
caatttgagc agtaccttag ggatgagagt ggcctgaacc ggaagaacat ccaggactcc  
420  
cgagtcact gctgcctcta cttcatctca cccttcggcc gggctcggc ccctagatgt  
480  
ggcttcctcc gggcaatata cgagaaagtc aacatcatcc cagtcattgg caaagcggat  
540  
gccctgatgc cccaggaaac ccaggccctc aagcagaaga tccgggatca gttgaaggaa  
600  
gaggagatcc acatctacca gttccccgaa tgtgactctg atgaagatga agacttcaag  
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720  
gta  
723

<210> 4658  
<211> 233  
<212> PRT  
<213> Homo sapiens

<400> 4658  
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Arg Lys Ser Val Lys Lys Gly Phe Asp Phe Thr Leu Met Val Ala Gly  
20 25 30  
Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr  
35 40 45  
Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr  
50 55 60  
Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly  
65 70 75 80  
Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

85								90				95			
Val	Asp	Cys	Ser	Asp	Cys	Trp	Leu	Pro	Val	Val	Lys	Phe	Ile	Glu	Glu
100								105				110			
Gln	Phe	Glu	Gln	Tyr	Leu	Arg	Asp	Glu	Ser	Gly	Leu	Asn	Arg	Lys	Asn
115								120				125			
Ile	Gln	Asp	Ser	Arg	Val	His	Cys	Cys	Leu	Tyr	Phe	Ile	Ser	Pro	Phe
130								135				140			
Gly	Arg	Ala	Pro	Ala	Pro	Arg	Cys	Gly	Phe	Leu	Arg	Ala	Ile	His	Glu
145								150				155			
Lys	Val	Asn	Ile	Ile	Pro	Val	Ile	Gly	Lys	Ala	Asp	Ala	Leu	Met	Pro
165								170				175			
Gln	Glu	Thr	Gln	Ala	Leu	Lys	Gln	Lys	Ile	Arg	Asp	Gln	Leu	Lys	Glu
180								185				190			
Glu	Glu	Ile	His	Ile	Tyr	Gln	Phe	Pro	Glu	Cys	Asp	Ser	Asp	Glu	Asp
195								200				205			
Glu	Asp	Phe	Lys	Arg	Gln	Asp	Ala	Glu	Met	Lys	Glu	Ser	Ile	Pro	Phe
210								215				220			
Ala	Val	Val	Gly	Ser	Cys	Glu	Val	Val							
225								230							

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<210> 4659
<211> 864
<212> DNA
<213> Homo sapiens
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120
ggcgccgggtg gtcgtttgtga cccaacctgg agtcgggtccc ggtccggccc ccagaaactc
180
caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
240
atthttgtttc ccgtgccttg ggtgtcaagt tgcagctgat atgaatgaat gctgtctgtg
300
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420
agatatcaac agaaggagag ccatgcgtac tttctaaaaa ctgatggtga aaagctctta
480
ccgaagcaac aaaattcagc agacacctct tcagcttgag ttcttcacca tcttttgcaa
540
ctgaaatatg atggatatgc ttaagtacaa ctgatggcat gaaaaaaatc aaatthtttg
600
tttattataa atgaatgttg tccctgaact tagctaaatg gtgcaactta gtttctcctt
660
gctttcatat tatcgaattc gaatttctct gcttataaac tttttaaatt acatttgaaa
720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
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840
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tttcctttttt cttttttttt ttg  
864

<210> 4660  
<211> 192  
<212> PRT  
<213> Homo sapiens

<400> 4660  
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Asp Gly Glu Glu Leu Lys Leu Lys Arg Cys Leu Leu Asn Phe Val Ala  
20 25 30  
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser  
35 40 45  
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr  
50 55 60  
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile  
65 70 75 80  
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr  
85 90 95  
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr  
100 105 110  
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His  
115 120 125  
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser  
130 135 140  
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys  
145 150 155 160  
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala  
165 170 175  
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe  
180 185 190

<210> 4661  
<211> 153  
<212> DNA  
<213> Homo sapiens

<400> 4661  
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120  
tttgaggacc ctcaccatgg ccatgggcag ttc  
153

<210> 4662  
<211> 51  
<212> PRT  
<213> Homo sapiens

<400> 4662  
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Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly			
	20	25	30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His			
	35	40	45
Gly Gln Phe			
50			

<210> 4663  
 <211> 1550  
 <212> DNA  
 <213> Homo sapiens

<400> 4663  
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 gatgaggtga tcctgaagga cctggaggtg ctggcagaaa tcgcttcctc ccccgagggc  
 120  
 cagacggatg acccaggccc cctcgatggc cctgacctcc aggccagcca ctcagagctc  
 180  
 caggtgcccc cccctggcag agccggccta ctgaacacct ctggtaccaa aggcttagaa  
 240  
 tgttctcctt caactcccac catgaattct tacttttata agttcatgat caaccttctc  
 300  
 aagagattca gcagcgaacg gaagctcctg gaggtcagag gccctttcat catcaggcag  
 360  
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 480  
 tccacagagc tcttccagct aaggaaccag ctgaaggacc tgaagacctt ggagagccag  
 540  
 aacctgttct gctgcctgta ccgctcctgg tgccacaacc cagtcaccac ggtgtccctc  
 600  
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 780  
 gccctctacg gcctgctcat gctcctgccg cagagcagcg ccttccagct gctctcgac  
 840  
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 900  
 cccaagtccc agaaagctga ctcccctagc atcgactacg cagagctgct gcagcacttt  
 960  
 gagaaggtcc agaacaagca cctggaagtg cggcaccagc ggagcgggag tggggaccac  
 1020  
 ctggaccgga gggttgtcct ctgacaggcc tggcacggag gagggccac cgagtgggtc  
 1080  
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 1140  
 cagggtctggg cctgccaacc cagggcagtg ttggggccgg aggctgctgt gtctgcccc  
 1200

gctcctctca gagtccagtc cccaggcctc cagcgctgtc agctgcaccc tggcattctc  
 1260  
 acagagctgg ctgcccaccc agtggggggc tatagcctca gagaccactc atcctctgga  
 1320  
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 1380  
 gctctggcct tgtgtgtata tgtatacata cgtgaacaca tgctgtgtgtg tgtgtgtgtg  
 1440  
 tgtgtacttg tatgcacgta ggcaccagca caaagatctg aatgatgcac cccaccccca  
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 1550

<210> 4664  
 <211> 347  
 <212> PRT  
 <213> Homo sapiens

<400> 4664

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Ser	Asp	Glu	Ser	Asp	Glu	Val	Ile	Leu	Lys	Asp	Leu	Glu	Val	Leu	Ala
			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50					55					60				
Pro	Gly	Arg	Ala	Gly	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu	
65					70				75					80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85					90					95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
			100					105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130					135					140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145					150				155					160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165					170					175		
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
		180					185						190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195					200					205			
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210					215					220				
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225					230					235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
			245					250					255		
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
		260					265					270			
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

		275					280					285				
Glu	Leu	Leu	Gln	Thr	Glu	Asp	Ser	Leu	Lys	Ala	Ala	Pro	Lys	Ser	Gln	
		290					295					300				
Lys	Ala	Asp	Ser	Pro	Ser	Ile	Asp	Tyr	Ala	Glu	Leu	Leu	Gln	His	Phe	
305						310				315					320	
Glu	Lys	Val	Gln	Asn	Lys	His	Leu	Glu	Val	Arg	His	Gln	Arg	Ser	Gly	
				325					330					335		
Arg	Gly	Asp	His	Leu	Asp	Arg	Arg	Val	Val	Leu						
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<210> 4665
<211> 1043
<212> DNA
<213> Homo sapiens
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<400> 4665
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120
aaagagaaaag agccagtggt tgttgagaca gtagaagaga aaaaggaacc tatcctagtg
180
tgtccacctt tacgaagccg agcatacaca ccacctgaag atctccagag tcgtttgga
240
tcttacgtta aagaagtttt tggttcatct cttcctagta attggcaaga catctccctg
300
gaagatagtc gtctaaagtt caatcttctg gctcatttag ctgatgactt gggtcagtga
360
gtccctaact ccagactcca ccagatgtgc aggggtagag atgttcttga tttctataat
420
gtccctattc aagatagatc taaatttgat gaactcagtg ccagtaatct gcccccaat
480
ttgaaaatca cttggagtta ctaagcaatt cggaagagaa acacattgaa atcactgtct
540
ttccctgagc aagggggctg ctcattagat cttttgatac tttaccatgt gaaatactac
600
cagaactggt ctctaaaccc actttttctg tagaggaatg tatcatcttt ttttttctca
660
tattacaaat ggacaaataa cggactttct attttcatat ttgctgaaac cattttttta
720
atgaaattag gtcattattt atgaaaagtt ttgagagggc actgtcaact tgggtttaag
780
acaggaggac attgcaagtt cacacctttc ataagcataa agtagttgca agaaagtatt
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900
ttttattaga tagataccta taaaagaaac ataaaagtat gttgtgtatt actgacagtt
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1020
aaaaaaaaaa aaaaaaaaaa aaa
1043

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<210> 4666

<211> 167  
 <212> PRT  
 <213> Homo sapiens

<400> 4666  
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 Gly Ile Thr Arg Arg Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys  
                   20                  25                  30  
 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val  
           35                  40                  45  
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu  
       50                  55                  60  
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu  
 65                  70                  75                  80  
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln  
                   85                  90                  95  
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His  
                   100                  105                  110  
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln  
           115                  120                  125  
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln  
       130                  135                  140  
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn  
 145                  150                  155                  160  
 Leu Lys Ile Thr Trp Ser Tyr  
                   165

<210> 4667  
 <211> 1031  
 <212> DNA  
 <213> Homo sapiens

<400> 4667  
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 120  
 cctctgctgg aggggaaagc ccgctcctgt ttgctatga ccgagcccca ggttgctctt  
 180  
 tcagatgcca ccaacattga ggcttccatc agagaggagg acagcttcta tgtcataaac  
 240  
 ggtcacaat ggtggatcac aggcattctg gatcctcgtt gccactctg tgtgtttatg  
 300  
 ggaaaaacag acccatatgc accaagacac cggcagcagt ctgtgctctt ggttcccatg  
 360  
 gatacccccag ggataaaaat catccggcct ctgacggtgt atggactgga agatgcacca  
 420  
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gctttccccc gcaccagca ctgactcaga accaccacct tctgctttgc tgtcggactt  
 660  
 caattcctac ctgttttctg agtgcagtcc tagcaggtga agcaaggtga tgtccttgcc  
 720  
 aagaagttgc attcctgtct gctttgcac tgctactttg ctgcagtttg gattcagagc  
 780  
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 840  
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 960  
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 1020  
 aaaaaaaaaa a  
 1031

&lt;210&gt; 4668

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4668

Xaa	Ala	Met	Gly	Thr	Ser	Leu	Tyr	Ala	Pro	Glu	Val	Cys	Asn	Cys	Ser
1				5					10					15	
Ala	Pro	Asp	Thr	Gly	Asn	Met	Glu	Leu	Leu	Val	Arg	Tyr	Gly	Thr	Glu
			20					25					30		
Ala	Gln	Lys	Ala	Arg	Trp	Leu	Ile	Pro	Leu	Leu	Glu	Gly	Lys	Ala	Arg
		35					40					45			
Ser	Cys	Phe	Ala	Met	Thr	Glu	Pro	Gln	Val	Ala	Ser	Ser	Asp	Ala	Thr
	50					55					60				
Asn	Ile	Glu	Ala	Ser	Ile	Arg	Glu	Glu	Asp	Ser	Phe	Tyr	Val	Ile	Asn
65					70				75					80	
Gly	His	Lys	Trp	Trp	Ile	Thr	Gly	Ile	Leu	Asp	Pro	Arg	Cys	Gln	Leu
			85						90					95	
Cys	Val	Phe	Met	Gly	Lys	Thr	Asp	Pro	His	Ala	Pro	Arg	His	Arg	Gln
			100					105					110		
Gln	Ser	Val	Leu	Leu	Val	Pro	Met	Asp	Thr	Pro	Gly	Ile	Lys	Ile	Ile
		115					120					125			
Arg	Pro	Leu	Thr	Val	Tyr	Gly	Leu	Glu	Asp	Ala	Pro	Gly	Gly	His	Gly
		130				135					140				
Glu	Val	Arg	Phe	Glu	His	Val	Arg	Val	Pro	Lys	Glu	Asn	Met	Val	Leu
145					150					155				160	
Gly	Pro	Gly	Arg	Gly	Phe	Glu	Ile	Ala	Gln	Gly	Arg	Leu	Gly	Pro	Gly
			165						170					175	
Arg	Ile	His	His	Cys	Met	Arg	Leu	Ile	Gly	Phe	Ser	Glu	Arg	Ala	Leu
		180					185						190		
Ala	Leu	Met	Lys	Ala	Arg	Val	Ser	Ala	Phe	Pro	Arg	Thr	Gln	His	
		195					200						205		

&lt;210&gt; 4669

&lt;211&gt; 683

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4669

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 60  
 cagaaagtat ttcaacacaa tgaacttaag aaagagactt gtgttcaggc aggttttcag  
 120  
 gacatgaaca taaaaaaaca gattcaggaa cagcaccagg ctgccattat tattcagaag  
 180  
 cattgtaaag cctttaaaat aaggaagcat tatctccaca ttagagcaac agtagtttct  
 240  
 attcaaagaa gatacagaaa actaactgca gtgcgtaccc aagcagttat ttgtatacag  
 300  
 tcttattaca gaggctttta agtacgaaag gatattcaaa atatgcaccg ggctgccaca  
 360  
 ctaattcagt cattctatcg aatgcacagg gccaaagttg attattaaac aaagaaaact  
 420  
 gcaattgtgg ttatacagaa ttattatagg ttgtatgtta gagtaaaaac agaaagaaaa  
 480  
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcatgaaa  
 540  
 gttagacaaa aattgaaaaa atgtatcaga ggaaaagatg gcagccattg ttaaccaatc  
 600  
 tgcactctgc tgttacagaa gtaaaactca gtatgaagct gttcaaagtg aaggtgttat  
 660  
 gattcaagag tggataaaag ctt  
 683

&lt;210&gt; 4670

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4670

Xaa	Ser	Phe	Ser	Gly	Leu	Arg	Gly	Ile	Ile	Gln	Glu	Lys	Tyr	Arg	Ala
1				5				10						15	
Asn	Lys	Lys	Lys	Gln	Lys	Val	Phe	Gln	His	Asn	Glu	Leu	Lys	Lys	Glu
			20					25					30		
Thr	Cys	Val	Gln	Ala	Gly	Phe	Gln	Asp	Met	Asn	Ile	Lys	Lys	Gln	Ile
			35				40					45			
Gln	Glu	Gln	His	Gln	Ala	Ala	Ile	Ile	Ile	Gln	Lys	His	Cys	Lys	Ala
			50			55				60					
Phe	Lys	Ile	Arg	Lys	His	Tyr	Leu	His	Ile	Arg	Ala	Thr	Val	Val	Ser
65					70					75				80	
Ile	Gln	Arg	Arg	Tyr	Arg	Lys	Leu	Thr	Ala	Val	Arg	Thr	Gln	Ala	Val
			85					90					95		
Ile	Cys	Ile	Gln	Ser	Tyr	Tyr	Arg	Gly	Phe	Lys	Val	Arg	Lys	Asp	Ile
			100					105					110		
Gln	Asn	Met	His	Arg	Ala	Ala	Thr	Leu	Ile	Gln	Ser	Phe	Tyr	Arg	Met
		115					120						125		
His	Arg	Ala	Lys	Val	Asp	Tyr									
		130				135									

&lt;210&gt; 4671

&lt;211&gt; 657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4671

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accggtccag ggcattcagg tggtcctcca ggcccaggag agtgctgcac acccggtcca
60
gcaccagegc catccgcttc gaggttgagc ctctgcagc agtggaatca ggggcctcct
120
ggggctcggc aggggctacc cggtccgct tccgccagc aatggagact gcagccacgt
180
taggccaggc tgctgcagt gtttcagcat ctatccgcag ggatccacgg ggaagctggt
240
gtgcgccgga taaagatggc aaccgccgat gagattgtga aactcatgct cgaccacatg
300
acaaacacca ccaacgcgtc ccatgtgcct gtgcagcccg gtcctcagt tgtgatgatg
360
gtcaacaacc tgggtggcct gtcattcctg gaactgggca tcatagccga cgctaccgtc
420
cgctccctgg agggccgcgg ggtgaagatt gcccggtccc tgggtgggcac cttcatgtca
480
gcactggaga tgcttggcat ttctctcacc ctctgctgg tggatgagcc tctcctgaaa
540
ctgatagatg ctgaaaccac tgcagcagcc tggcctcgaa gcggatggcg ctggtgctgg
600
aacgggtgtg cagcactctc ctgggcctgg aggaacacct gaatgcctg gaccggt
657

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&lt;210&gt; 4672

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4672

```

Ala Arg Leu Leu Gln Trp Phe Gln His Leu Ser Ala Gly Ile His Gly
 1           5           10           15
Glu Ala Gly Val Arg Arg Ile Lys Met Ala Thr Ala Asp Glu Ile Val
      20           25           30
Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
      35           40           45
Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
      50           55           60
Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
65           70           75           80
Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
      85           90           95
Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
      100          105          110
Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
      115          120          125
Ala Trp Pro Arg Ser Gly Trp Arg Trp Cys Trp Asn Gly Cys Ala Ala
      130          135          140
Leu Ser Trp Ala Trp Arg Asn Thr
145          150

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<210> 4673  
<211> 1335  
<212> DNA  
<213> Homo sapiens

<400> 4673  
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120  
aatctaagga tgaatgttca ccgtggcagt gacagtgaca ggttattgcg gcaggaggcc  
180  
agctgcttag tggatgatac tttagctgta gccaagaaa aagaagcaaa cagcctggct  
240  
tcctctggtc ctcataatct tacttatact ctaggtccca ggaatgaaga cctctcactt  
300  
gactatgcct ctacagccagc aaatcttcag ttccctcaca taatgcccct tgctgaagac  
360  
atcaaagggt cttgcttcca aagtgggaat aaacggaacc atgaaccttt tattgctcca  
420  
gaaagatttg gaaacagtag tgtgggcttt ggcagtaatt cccattccca agcaccagag  
480  
aaagtgcgcg ttcttgtaga tggcacacgt tttgttgtga atccacagat tttcactgct  
540  
catccggata ccatgctggg aaggatgttt ggaccaggaa gagagtacaa cttcactcgg  
600  
cccaatgaga agggagagta tgagattgct gaaggcatca gtgcaactgt atttcgcaca  
660  
gtgctggatt attacaaaac cggatcatc aattgtcctg atggcatctc tatcccagat  
720  
cttagagata cttgtgatta tctctgcatt aattttgact tcaacactat ccgatgtcaa  
780  
gatctgagtg ctttactcca tgaactgtct aatgacggtg ctcataagca gtttgcacac  
840  
tacctcgaag agctcatctt gcccatcatg gtgggctgtg ccaagaaagg agaacgagag  
900  
tgccacattg ttgtgctgac ggatgaggat tctgtggact gggatgaaga ccaccctcca  
960  
ccaatggggg aggaatatct ccaaattctt tatagctcca agctctacag attcttcaaa  
1020  
tatattgaga atagggatgt tgcaaaaaca gtgttaaagg aacggggcct aaaaaacatt  
1080  
cgcattggaa ttgaagggtta ccctacctgt aaagaaaaaa ttaagagaag gcctggcggc  
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cgttctgaag tcactataaa ttatgtacaa cgccccttca tccagatgtc atgggaaaag  
1200  
gaagaaggga agagtcgcca tgtggatttc cagtgtgttc gaagcaaata cctcacgaat  
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1335

<210> 4674

<211> 402  
 <212> PRT  
 <213> Homo sapiens

<400> 4674

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Met Asn Val His Arg Gly Ser Asp Ser Asp Arg Leu Leu Arg Gln Glu
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Ala Ser Cys Leu Val Asp Asp Thr Leu Ala Val Ala Gln Glu Lys Glu
          20           25           30
Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
          35           40           45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
          50           55           60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
65           70           75           80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
          85           90           95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
          100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
          115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
          130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
          165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
          180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
          195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
          210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
          245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
          260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
          275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
          290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
          325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
          340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
          355          360          365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
          370          375          380
Val Leu Glu Asp Gln Glu Ile Leu Met His His Pro Pro Gln Val Asp

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385  
Glu Leu

390

395

400

<210> 4675  
<211> 2868  
<212> DNA  
<213> Homo sapiens

<400> 4675  
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120  
cgctcagcga ggaccgttag cagcaacagc ttctgctcag atgacacagg ctgtcctagc  
180  
agccagtcag tgtctcctgt gaagacaccc tcagatgctg gaaacagccc cattggcttt  
240  
tgccctggaa gtgatgaagg cttcaccaga aagaaatgca cgattggaat ggttggtgaa  
300  
ggaagcattc agtcctctcg atataagaag gaatcaaagt caggccttgt gaaaccaggt  
360  
agtgaagctg attttagctc ctcgagcagc acaggcagca ttccgctcc tgaggtccat  
420  
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480  
agtaatggag cttcgtcaca caagcctggc agcagctcat catccccgcg ggaaaaggac  
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780  
aagctgaagg aatctgagcg ccgactccat gaaagggaaa gtgaaatcgt ggagcttaag  
840  
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cagttggcac tcaaagaagc caggaaagag attaaacagc tcaaacaggt catcgaaacc  
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1020  
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1320

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1440  
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2160  
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2460  
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2520  
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2580  
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2640  
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2700  
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2760  
ggaaaaagag ttagttatta aagaaaatga agatttccca ccttactta aaaagcatca  
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2868

&lt;210&gt; 4676

<211> 641  
 <212> PRT  
 <213> Homo sapiens

<400> 4676

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Xaa Ile Pro Arg Leu Ile Leu Arg Pro His Met Pro Gln Gln Gln His
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      20           25           30
Glu Phe Asn Pro Ser Ser Ser Gly Arg Ser Ala Arg Thr Val Ser Ser
      35           40           45
Asn Ser Phe Cys Ser Asp Asp Thr Gly Cys Pro Ser Ser Gln Ser Val
      50           55           60
Ser Pro Val Lys Thr Pro Ser Asp Ala Gly Asn Ser Pro Ile Gly Phe
      65           70           75           80
Cys Pro Gly Ser Asp Glu Gly Phe Thr Arg Lys Lys Cys Thr Ile Gly
      85           90           95
Met Val Gly Glu Gly Ser Ile Gln Ser Ser Arg Tyr Lys Lys Glu Ser
      100           105           110
Lys Ser Gly Leu Val Lys Pro Gly Ser Glu Ala Asp Phe Ser Ser Ser
      115           120           125
Ser Ser Thr Gly Ser Ile Ser Ala Pro Glu Val His Met Ser Thr Ala
      130           135           140
Gly Ser Lys Arg Ser Ser Ser Arg Asn Arg Gly Pro His Gly Arg
      145           150           155           160
Ser Asn Gly Ala Ser Ser His Lys Pro Gly Ser Ser Ser Ser Pro
      165           170           175
Arg Glu Lys Asp Leu Leu Ser Met Leu Cys Arg Asn Gln Leu Ser Pro
      180           185           190
Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser Ser Ser Asn
      195           200           205
Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met Arg Arg Ser
      210           215           220
Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg Pro Pro Asn
      225           230           235           240
Pro Glu Gln Tyr Leu Thr Pro Leu Gln Gln Lys Glu Val Thr Val Arg
      245           250           255
His Leu Lys Thr Lys Leu Lys Glu Ser Glu Arg Arg Leu His Glu Arg
      260           265           270
Glu Ser Glu Ile Val Glu Leu Lys Ser Gln Leu Ala Arg Met Arg Glu
      275           280           285
Asp Trp Ile Glu Glu Glu Cys His Arg Val Glu Ala Gln Leu Ala Leu
      290           295           300
Lys Glu Ala Arg Lys Glu Ile Lys Gln Leu Lys Gln Val Ile Glu Thr
      305           310           315           320
Met Arg Ser Ser Leu Ala Asp Lys Asp Lys Gly Ile Gln Lys Tyr Phe
      325           330           335
Val Asp Ile Asn Ile Gln Asn Lys Lys Leu Glu Ser Leu Leu Gln Ser
      340           345           350
Met Glu Met Ala His Ser Gly Ser Leu Arg Asp Glu Leu Cys Leu Asp
      355           360           365
Phe Pro Cys Asp Ser Pro Glu Lys Ser Leu Thr Leu Asn Pro Pro Leu
      370           375           380
Asp Thr Met Ala Asp Gly Leu Ser Leu Glu Glu Gln Val Thr Gly Glu

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385          390          395          400
Gly Ala Asp Arg Glu Leu Leu Val Gly Asp Ser Ile Ala Asn Ser Thr
          405          410          415
Asp Leu Phe Asp Glu Ile Val Thr Ala Thr Thr Thr Glu Ser Gly Asp
          420          425          430
Leu Glu Leu Val His Ser Thr Pro Gly Ala Asn Val Leu Glu Leu Leu
          435          440          445
Pro Ile Val Met Gly Gln Glu Glu Gly Ser Val Val Val Glu Arg Ala
          450          455          460
Val Gln Thr Asp Val Val Pro Tyr Ser Pro Ala Ile Ser Glu Leu Ile
465          470          475          480
Gln Ser Val Leu Gln Lys Leu Gln Asp Pro Cys Pro Ser Ser Leu Ala
          485          490          495
Ser Pro Asp Glu Ser Glu Pro Asp Ser Met Glu Ser Phe Pro Glu Ser
          500          505          510
Leu Ser Ala Leu Val Val Asp Leu Thr Pro Arg Asn Pro Asn Ser Ala
          515          520          525
Ile Leu Leu Ser Pro Val Glu Thr Pro Tyr Xaa Gln Cys Gly Cys Arg
          530          535          540
Ser Ser Cys Lys Pro Pro His Glu Arg Ala Gly Xaa Phe Ala Ala Cys
545          550          555          560
Val Glu Glu Arg Leu Asp Gly Val Ile Pro Leu Ala Arg Gly Gly Val
          565          570          575
Val Arg Gln Tyr Trp Ser Ser Ser Phe Leu Val Asp Leu Leu Ala Val
          580          585          590
Ala Ala Pro Val Val Pro Thr Val Leu Trp Ala Phe Ser Thr Gln Arg
          595          600          605
Gly Gly Thr Asp Pro Val Tyr Asn Ile Gly Ala Leu Leu Arg Gly Cys
610          615          620
Cys Val Val Ala Leu His Ser Leu Arg Arg Thr Ala Phe Arg Ile Lys
625          630          635          640
Thr

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&lt;210&gt; 4677

&lt;211&gt; 940

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4677

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 940

&lt;210&gt; 4678

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4678

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			20					25				30			
Arg	Thr	Val	Phe	Ile	Trp	Phe	Val	Gly	Gln	Leu	Leu	Gly	Gly	Glu	Leu
		35					40					45			
Lys	Gly	Tyr	Ser	Lys	Thr	Asn	Thr	Thr	Ser	Ser	Arg	Pro	Ala	Ser	Ser
	50					55					60				
Arg	Gly	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Thr
65					70					75					80
Asp	Ala	Leu	Pro	Ser	Ser	Leu	Lys	Ser	Asp	Ser	Thr	Thr	Ile	Thr	Ser
				85					90					95	
Gly	Leu	Val	Phe	Pro	Phe	Arg	Ser	Leu	Cys	Val	Asn	Pro	Ala	Lys	Ser
			100					105					110		
Ser	Val	Ser	Glu	Ser	Val	Ser	Ser	Ile	Lys	Ile	Leu	Leu	Ser	Ser	Ser
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Val	Lys	Tyr	Leu	Glu											
			130												

&lt;210&gt; 4679

&lt;211&gt; 2284

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4679

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1740



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 2284

<210> 4680  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 4680  
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 35 40 45  
 Ser Pro Cys Ser Leu Thr Phe Ser Arg Ala Ile Lys Ala Thr Ser Ser  
 50 55 60  
 Ile Ala Gly Pro Gln Thr Phe Gln Gly Lys His Cys Phe Thr Ser Cys  
 65 70 75 80  
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<210> 4681  
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 <212> DNA  
 <213> Homo sapiens

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 906

&lt;210&gt; 4682

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4682

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			20					25						30	
Phe	Leu	Phe	His	Gln	Thr	Thr	Arg	Gln	Lys	Asn	Leu	Ser	Phe	Leu	Pro
			35					40						45	
Pro	Phe	Ser	Phe	Phe	Pro	Ser	Cys	Thr	His	Leu	Glu	Asn	Phe	Thr	Phe
			50					55						60	
Leu	Glu	Ser	Pro	Gln	Asn	Asn	Thr	Lys	Val	Ile	Val	Gly	Ala	Thr	Gly
65					70					75					80
Phe	Met	Leu	Tyr	Cys	Gly	Ala	Arg	Gly	Lys	Thr	Cys	Leu	Tyr	Ala	Gly
				85					90						95
Asn	Thr	His	Asn	His	Ser	Phe	Arg	Phe	Val	Cys	Leu	Met	Val	Ile	Cys
			100					105						110	
His	Lys	Arg	Asp	Leu	Gln	Lys	Gln	Gly	Ala	Leu	Val	Asn	Val	Gln	Tyr
			115					120						125	
Leu	Asp	Phe	Cys	Val	Leu	Arg	Thr	Gln	Lys	Gly	Ala	Thr	Leu	Leu	Phe
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<210> 4683  
<211> 3246  
<212> DNA  
<213> Homo sapiens

<400> 4683  
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<210> 4684

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4684

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			20					25					30		
Pro	His	Ala	Arg	Ser	Arg	Val	Arg	Pro	Ala	Pro	Lys	Thr	Ile	Pro	Gln
		35					40					45			
Gln	Thr	His	Gly	Thr	Ala	Arg	Ile	Gly	Thr	His	Asn	Gly	Thr	Phe	His
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Arg	Asp	Ala	Glu	Ile	Val	Arg	Thr	Arg	Asp	Pro	Glu	Lys	Leu	Ala	Ser
				85					90					95	
Cys	Asp	Ile	Val	Val	Asp	Val	Gly	Gly	Glu	Tyr	Asp	Pro	Arg	Arg	His
		100						105					110		
Arg	Tyr	Asp	His	His	Gln	Arg	Ser	Phe	Thr	Glu	Thr	Met	Ser	Ser	Leu
		115					120					125			
Ser	Pro	Gly	Lys	Pro	Trp	Gln	Thr	Lys	Leu	Ser	Ser	Ala	Gly	Leu	Ile
		130				135						140			
Tyr	Leu	His	Phe	Gly	His	Lys	Leu	Leu	Ala	Gln	Leu	Leu	Gly	Thr	Ser
145					150					155				160	
Glu	Glu	Asp	Ser	Met	Val	Gly	Thr	Leu	Tyr	Asp	Lys	Met	Tyr	Glu	Asn
				165					170					175	
Phe	Val	Glu	Glu	Val	Asp	Ala	Val	Asp	Asn	Gly	Ile	Ser	Gln	Trp	Ala
			180					185					190		
Glu	Gly	Glu	Pro	Arg	Tyr	Ala	Leu	Thr	Thr	Thr	Leu	Ser	Ala	Arg	Val
		195					200					205			
Ala	Arg	Leu	Asn	Pro	Thr	Trp	Asn	His	Pro	Asp	Gln	Asp	Thr	Glu	Ala
		210				215					220				
Gly	Phe	Lys	Arg	Ala	Met	Asp	Leu	Val	Gln	Glu	Glu	Phe	Leu	Gln	Arg
225				230					235					240	
Leu	Asp	Phe	Tyr	Gln	His	Ser	Trp	Leu	Pro	Ala	Arg	Ala	Leu	Val	Glu
			245						250					255	
Glu	Ala	Leu	Ala	Gln	Arg	Phe	Gln	Val	Asp	Pro	Ser	Gly	Glu	Ile	Val
		260					265						270		
Glu	Leu	Ala	Lys	Gly	Ala	Cys	Pro	Trp	Lys	Glu	His	Leu	Tyr	His	Leu
		275				280					285				
Glu	Ser	Gly	Leu	Ser	Pro	Pro	Val	Ala	Ile	Phe	Phe	Val	Ile	Tyr	Thr
		290				295					300				
Asp	Gln	Ala	Gly	Gln	Trp	Arg	Ile	Gln	Cys	Val	Pro	Lys	Glu	Pro	His

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305          310          315          320
Ser Phe Gln Ser Arg Leu Pro Leu Pro Glu Pro Trp Arg Gly Leu Arg
          325          330          335
Asp Glu Ala Leu Asp Gln Val Ser Gly Ile Pro Gly Cys Ile Phe Val
          340          345          350
His Ala Ser Gly Phe Ile Gly Gly His Arg Thr Arg Glu Gly Ala Leu
          355          360          365
Ser Met Ala Arg Ala Thr Leu Ala Gln Arg Ser Tyr Leu Pro Gln Ile
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Ser
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<210> 4685
<211> 618
<212> DNA
<213> Homo sapiens

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240
gccgcagctg atgcccagg acgcgctgga caccggtctg cagccgcttc caacctctcc
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360
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420
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480
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618

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<210> 4686
<211> 106
<212> PRT
<213> Homo sapiens

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<400> 4686
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20     25     30
Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn Val Ser Lys
35     40     45
Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

```

```

      50              55              60
Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
65              70              75              80
Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln Ala Gln Glu
      85              90              95
Asp Arg Glu Lys Gly Gln Met Pro His Thr
      100              105

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<210> 4687  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

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<400> 4687
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cggcgctctc gcaccccttg tgggtggcat tgatgagcgc cctaatactg ggtctgcttt
180
tcgtggcggt ctacagcttg tcccatggcg aggtctccta tgaccactc tatgctggct
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300
atgggggggg
309

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<210> 4688  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

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<400> 4688
Met Asp Ile Pro Pro Leu Ala Gly Lys Ile Ala Ala Leu Ser Leu Ser
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Ala Leu Pro Val Ser Tyr Ala Leu Asn His Val Ser Ala Leu Ser His
      20              25              30
Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
      35              40              45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
      50              55              60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65              70              75              80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
      85              90

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<210> 4689  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

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<400> 4689
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 180  
 gggcagctgg tggctccact gcccctggca ccgngggccc tgcgtgccag tctgggtgcac  
 240  
 gtgggcagtc ggccatacac cgagttcccc ttccggccagc acagctcggg tgaggctgac  
 300  
 caggatgcgg tgcgtgcttc tgcccagcgc atgggtgaca cccacactgg cctggcgctg  
 360  
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 420  
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 480  
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 720  
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 780  
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 898

<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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Ala	Leu	Ser	Leu	Arg	Trp	Arg	Trp	Arg	Thr	Pro	Asp	Cys	Pro	Pro	Ala
			20					25					30		
Ser	Ala	Pro	Glu	Asp	Leu	Met	Phe	Leu	Leu	Asp	Ser	Ser	Ala	Ser	Val
		35					40					45			
Ser	His	Tyr	Glu	Phe	Ser	Arg	Val	Arg	Glu	Phe	Val	Gly	Gln	Leu	Val
	50					55					60				
Ala	Pro	Leu	Pro	Leu	Ala	Pro	Xaa	Ala	Leu	Arg	Ala	Ser	Leu	Val	His
65					70					75				80	
Val	Gly	Ser	Arg	Pro	Tyr	Thr	Glu	Phe	Pro	Phe	Gly	Gln	His	Ser	Ser
			85					90						95	
Gly	Glu	Ala	Ala	Gln	Asp	Ala	Val	Arg	Ala	Ser	Ala	Gln	Arg	Met	Gly
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Asp	Thr	His	Thr	Gly	Leu	Ala	Leu	Val	Tyr	Ala	Lys	Glu	Gln	Leu	Phe
		115					120					125			
Ala	Glu	Ala	Ser	Gly	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Leu	Val	Trp
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Val	Thr	Asp	Gly	Gly	Ser	Ser	Asp	Pro	Val	Gly	Pro	Pro	Met	Gln	Glu



145		150		155		160
Leu Lys Asp Leu Gly Val Thr Val Phe Ile Val Ser Thr Gly Arg Gly						
	165			170		175
Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His						
	180			185		190
Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu						
	195			200		205
Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr						
	210			215		220
Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr						
225				230		235
Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro						
	245			250		255
Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile						
	260			265		270
Trp Ala Gly Leu Asp <del>Pro</del> Asp Thr Asp Tyr Asp Val Ala Leu Val Pro						
	275			280		285
Glu Ser Asn Val Arg Leu Arg Pro Gln Ile						
	290			295		

&lt;210&gt; 4691

&lt;211&gt; 2375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4691

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840

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&lt;210&gt; 4692

&lt;211&gt; 383

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4692

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Leu Ser Arg Ile Asn Asn Tyr Thr Ile Pro Glu Glu Glu Ile Gly Ser
      20           25           30
Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
      35           40           45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
      50           55           60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
      65           70           75           80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
      85           90           95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
      100          105          110
Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
      115          120          125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
      130          135          140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
      145          150          155          160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
      165          170          175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
      180          185          190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
      195          200          205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
      210          215          220
Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
      225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
      245          250          255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
      260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
      275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
      290          295          300
Ser Ser Cys Tyr Gly Asp Cys Arg Ser Glu Asp Asp Glu Ala Thr Glu
      305          310          315          320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
      325          330          335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
      340          345          350
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Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
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<210> 4693  
 <211> 794  
 <212> DNA  
 <213> Homo sapiens

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<210> 4694  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 4694  
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 Asn Ser Gly Val Gly Gln Asp Gly Ser Leu Leu Ser Ser Pro Phe Leu  
 35 40 45  
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala  
 50 55 60  
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln  
 65 70 75 80  
 Ala Tyr Ala Val Pro Asn Val Glu Lys Thr Leu Arg Asp Tyr Leu Gln  
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 Leu Leu Arg Lys Gly Pro Asp

100

&lt;210&gt; 4695

&lt;211&gt; 2209

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4695

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<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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			20					25					30		
Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu	Val	Asp	Glu	Pro
		35					40					45			
Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala	Ala	Trp	Pro	Asn
		50				55					60				
Val	Ala	Ala	Val	Ser	Ile	Thr	Gly	Arg	Lys	Arg	Ser	Arg	Val	Ala	Pro
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Ala	Glu	Pro	Gln	Glu	Ala	Pro	Asp	Ser	Thr	Ala	Ala	Xaa	Glu	Ala	Gln
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Pro	Arg	Ser	Xaa	Met	Ala	Leu	Val	Leu	Glu	Arg	Val	Cys	Ser	Thr	Leu
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Gly	Asp	Cys	Gly	Thr	Thr	His	Ser	Arg	Ala	Ala	Arg	Ala	Ile	Gln	Glu
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Thr	Ser	Leu	Pro	Ala	Trp	Ser	Ala	Ala	Met	Asp	Ala	Gly	Leu	Glu	Ala
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Met	Gln	Lys	Tyr	Gly	Lys	Ala	Ala	Pro	Gly	Asp	Arg	Thr	Met	Leu	Asp
				210					215					220	
Ser	Leu	Trp	Ala	Ala	Glu	Gln	Glu	Leu	Gln	Ala	Trp	Lys	Ser	Pro	Gly
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				260					265					270	
Tyr	Ile	Ser	Ser	Ala	Arg	Leu	Glu	Gln	Pro	Asp	Pro	Gly	Ala	Val	Ala
				275					280					285	
Ala	Ala	Ala	Ile	Leu	Arg	Ala	Ile	Leu	Glu	Val	Leu	Gln	Ser		
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&lt;210&gt; 4697

&lt;211&gt; 1047

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4697

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 720  
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 780  
 aacctcaagg tgccaaaaag ttaaattgtg agtatgaatc tggctatttt ctgcttttaa  
 840

tgggtgtgtct ttaagtgtgt tttataacaa tgggatagat taattattaa gatgtttctg  
 900  
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 960  
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<210> 4698

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4698

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Thr	Asp	Gly	Thr	Val	Phe	Arg	Ile	His	Thr	Lys	Ala	Glu	Gly	Phe	Met
		20						25					30		
Asp	Ala	Asp	Ile	Pro	Leu	Glu	Leu	Val	Phe	His	Leu	Pro	Val	Asn	Tyr
	35						40					45			
Pro	Ser	Cys	Leu	Pro	Gly	Ile	Ser	Ile	Asn	Ser	Glu	Gln	Leu	Thr	Arg
	50					55					60				
Ala	Gln	Cys	Val	Thr	Val	Lys	Glu	Lys	Leu	Leu	Glu	Gln	Ala	Glu	Ser
65					70				75						80
Leu	Leu	Ser	Glu	Pro	Met	Val	His	Glu	Leu	Val	Leu	Trp	Ile	Gln	Gln
				85					90					95	
Asn	Leu	Arg	His	Ile	Leu	Ser	Gln	Pro	Glu	Thr	Gly	Ser	Gly	Ser	Glu
			100					105					110		
Lys	Cys	Thr	Phe	Ser	Thr	Ser	Thr	Thr	Met	Asp	Asp	Gly	Leu	Trp	Ile
		115					120					125			
Thr	Leu	Leu	His	Leu	Asp	His	Met	Arg	Ala	Lys	Thr	Lys	Tyr	Val	Lys
	130					135					140				
Ile	Val	Glu	Lys	Trp	Ala	Ser	Asp	Leu	Arg	Leu	Thr	Gly	Arg	Leu	Met
145					150					155					160
Phe	Met	Gly	Lys	Ile	Ile	Leu	Ile	Leu	Leu	Gln	Gly	Asp	Arg	Asn	Asn
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<210> 4699

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 4699

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 180  
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 420  
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 660  
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<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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Ser	Thr	Arg	Gly	Gln	Ser	Lys	Thr	Gly	Trp	Lys	Leu	Pro	Val	Thr	Leu
			20					25				30			
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser



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      1             5             10             15
Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
      20             25             30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35             40             45
Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
      50             55             60
Pro Pro Gly Leu Lys
65

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&lt;210&gt; 4703

&lt;211&gt; 513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4703

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120
cgaagagtct tcgaagggtt gccgcttttc ggtggcgcag ttctcgcgag aaggaaaatg
180
gcagctcccc agcagccgct tgcgatatca aggggatgca cgagctcctc ctgcttttcc
240
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513

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&lt;210&gt; 4704

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4704

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  1             5             10             15
Ser Ser Ser Leu Ser Pro Pro Arg Ala Asp Arg Thr Leu Leu Val Arg
      20             25             30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35             40             45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50             55             60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65             70             75             80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85             90             95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

&lt;210&gt; 4705

&lt;211&gt; 569

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4705

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 120  
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 180  
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 240  
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 480  
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 ggcttggtt ctgtttttca ctgtccgga  
 569

&lt;210&gt; 4706

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4706

Arg	Thr	Arg	Pro	Lys	Glu	Gly	Trp	Lys	Gly	Pro	Arg	Ser	Asp	Asn	Ser
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Lys	Ser	Asn	Lys	Ile	Phe	Val	Gly	Gly	Ile	Pro	His	Asn	Cys	Gly	Glu
		20					25					30			
Thr	Glu	Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val
	35					40					45				
Val	Met	Ile	Tyr	Asp	Ala	Glu	Lys	Gln	Arg	Pro	Arg	Gly	Lys	Gly	Arg
	50				55				60						
Ser	Ser	Leu	Thr	Ser	Ala	Phe	Ser	Leu	Leu	Leu	Pro	Gln	Met	Ala	Asn
65				70				75					80		
Tyr	Leu	Thr	Arg	Gln	Ala	His	Thr	Gly	Gly	Cys	Ser	Lys	Gln	Pro	
			85					90					95		
Gln	Glu	Gly	Thr	Ile	Trp	Arg	Gln	Met	Thr	Lys	Thr	Trp	Ala	Pro	His
		100					105					110			
Val	His	Pro	Ile	Gln	Pro	Val	Cys	Ala	Ser	Arg	Gly	Gln	Thr	Ser	His
	115					120					125				
Ile	Val	Phe	Trp	Leu	Val	Leu	Lys	Phe	Leu	Arg	Leu	Val	Met	Ser	
	130				135					140					
Leu	Gly	Leu	Ala	Ser	Val	Phe	His	Cys	Pro						

145

150

&lt;210&gt; 4707

&lt;211&gt; 748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4707

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 180  
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 748

&lt;210&gt; 4708

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4708

Met	Ala	Ala	Pro	Glu	Gln	Pro	Leu	Ala	Ile	Ser	Arg	Gly	Cys	Thr	Ser
1				5				10					15		
Ser	Ser	Ser	Leu	Ser	Pro	Pro	Arg	Gly	Asp	Arg	Thr	Leu	Leu	Val	Arg
			20					25				30			
His	Leu	Pro	Ala	Glu	Leu	Thr	Ala	Glu	Glu	Lys	Glu	Asp	Leu	Leu	Lys
			35				40				45				
Tyr	Phe	Gly	Ala	Gln	Ser	Val	Arg	Val	Leu	Ser	Asp	Lys	Gly	Arg	Leu
	50					55				60					
Lys	His	Thr	Ala	Phe	Ala	Thr	Phe	Pro	Asn	Glu	Lys	Ala	Ala	Ile	Lys
65					70				75					80	
Ala	Leu	Thr	Arg	Leu	His	Gln	Leu	Lys	Leu	Gly	His	Thr	Leu	Val	
			85					90					95		
Val	Glu	Phe	Ala	Lys	Glu	Gln	Asp	Arg	Val	His	Ser	Pro	Cys	Pro	Thr

Ser Gly Ser Glu Lys Lys Lys Met Ser Asp Asp Pro Val Glu Asp Asp

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115 120 125

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<210> 4709
<211> 1351
<212> DNA
<213> Homo sapiens
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1351

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<211> 304  
<212> PRT  
<213> Homo sapiens

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Tyr Gly Glu Val Val Asp Cys Val Ile Met Lys Asp Lys Thr Thr Asn  
35 40 45  
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val  
50 55 60  
Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile  
65 70 75 80  
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg  
85 90 95  
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser  
100 105 110  
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu  
115 120 125  
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met  
130 135 140  
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr  
145 150 155 160  
Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His  
165 170 175  
Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp  
180 185 190  
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser  
195 200 205  
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro  
210 215 220  
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly  
225 230 235 240  
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro  
245 250 255  
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly  
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<210> 4711  
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<212> DNA  
<213> Homo sapiens

<400> 4711

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 2061

&lt;210&gt; 4712

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4712

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Leu	Gln	Met	Asp	Val	Met	Pro	Gly	Glu	Gly	Asp	Leu	Pro	Gln	Met	Glu
			20					25					30		
Val	Gly	Ser	Gly	Ser	Arg	Glu	Leu	Ser	Leu	Arg	Pro	Ser	Arg	Ser	Gly
		35					40					45			
Ala	Gln	Gln	Leu	Glu	Glu	Glu	Gly	Pro	Met	Glu	Glu	Glu	Glu	Ala	Gln
	50					55					60				
Pro	Met	Ala	Ala	Pro	Glu	Gly	Lys	Arg	Ser	Leu	Ala	Asn	Gly	Pro	Asn
65					70				75					80	
Ala	Gly	Glu	Gln	Pro	Gly	Gln	Val	Ala	Gly	Ala	Asp	Phe	Glu	Ser	Glu
			85						90				95		
Asp	Glu	Gly	Glu	Glu	Phe	Asp	Asp	Trp	Glu	Asp	Asp	Tyr	Asp	Tyr	Pro
		100						105					110		
Glu	Glu	Glu	Gln	Leu	Ser	Gly	Ala	Gly	Tyr	Arg	Val	Ser	Ala	Ala	Leu
	115					120						125			
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&lt;210&gt; 4713

&lt;211&gt; 1324

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4713

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&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4714

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&lt;211&gt; 2051

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4715

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&lt;210&gt; 4716

&lt;211&gt; 239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4716

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His
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				85					90					95	
Lys	Val	Arg	Glu	Lys	Asp	Ile	Glu	Met	Phe	Leu	Glu	Ser	Ser	Arg	Ser
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		195					200					205			
Thr	Asp	Ser	Ile	Asn	Ile	Leu	Ala	Asp	Val	Leu	Pro	Glu	Glu	Met	Pro
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 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg  
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Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr					
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Ser Met Lys Ala Cys Asp Leu Gly His Ile Trp Ala Cys Ala Asn Ala					
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Ser Arg Met Tyr					
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&lt;210&gt; 4721

&lt;211&gt; 1385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4721

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 1380  
 agctt  
 1385

<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

Met	Asn	Arg	Leu	Pro	Asp	Asp	Tyr	Asp	Pro	Tyr	Ala	Val	Glu	Glu	Pro	1	5	10	15
Ser	Asp	Glu	Glu	Pro	Ala	Leu	Ser	Ser	Ser	Glu	Asp	Glu	Val	Asp	Val	20	25	30	
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys	35	40	45	
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu	50	55	60	
Met	Glu	Ala	Glu	Leu	Asn	Ser	Thr	Met	Lys	Thr	Met	Glu	Asp	Lys	Leu	65	70	75	80
Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr	85	90	95	
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu	100	105	110	
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln	115	120	125	
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp	130	135	140	
Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly	145	150	155	160
Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp	165	170	175	
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys	180	185	190	
Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met	195	200	205	
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu	210	215	220	
Asn	Arg	Lys	Lys	Arg	Arg	Val	His	Lys	Lys	Met	Arg	Ser	Asn	Arg	Glu	225	230	235	240
Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro	245	250	255	
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp	260	265	270	
Glu	Val	Phe	His	Phe	Phe	Asn	Val	Leu	Ala	Ser	His	Ser	275	280	285				

<210> 4723  
<211> 1213  
<212> DNA  
<213> Homo sapiens

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180  
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240  
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300  
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720  
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840  
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1080  
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1200  
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1213

<210> 4724  
<211> 54  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 4724

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Met Gly Pro Arg Arg His Arg Ala Ser Ser Ile Leu Pro Gln Thr Leu
 1           5           10           15
Val Gly Val Pro Val Gly Trp Gly Gly Glu Trp Gly Glu Pro Thr Pro
      20           25           30
Gly Pro Pro Ser Pro Phe Pro Arg Gln Ser Pro Phe Gly Leu Asn Pro
      35           40           45
Phe Leu Pro Ala Gly Asp
      50

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&lt;210&gt; 4725

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4725

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atgcttgcaa tagacacggc ttcagacatc ctggcacatg tccacgtgta ctctcgctg
120
tgcgcattgt cacgtgtgta tatgcatatg tgcacagggtg cctgtgcctg tgtgaacaca
180
tgttctcacg tgtgtacctg cntctcttgc ccatgcntgt acgtgcacac gtgcctctgt
240
atgcatgcat gtatagctgt gtgccatac cctcacgtga gaatacatat gcgcttgtgc
300
cttcacctct gcatgcatgc tagtgtgtct ctgcgtgcat ggggtgtgcat ctgtgcctgc
360
acgcgt
366

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&lt;210&gt; 4726

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4726

```

Xaa Phe Leu Glu Gly Glu Leu Gly Arg Ser Arg Arg Thr Pro Ala Gly
 1           5           10           15
Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
      20           25           30
His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
      35           40           45
His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
      50           55           60
Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
      65           70           75           80
Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
      85           90           95
Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
      100          105          110
Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
      115          120

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<210> 4727  
<211> 2031  
<212> DNA  
<213> Homo sapiens

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120  
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180  
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240  
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300  
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360  
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420  
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480  
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660  
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780  
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900  
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960  
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1020  
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1080  
ccattcgggtg tccagagatt tctgtacaca gggcgccagc ccaggcctga ggaagcagcg  
1140  
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1200  
gtggcctgct ccttaacacc tgcaaccgag ggactctgca acaaggactt cttccagaag  
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1380  
gaaccactgc ctacaaacca ccctctctc accctgaaga actgtgtgat tctgccccac  
1440

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 1500  
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 1680  
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 1740  
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 1800  
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 1860  
 tatctagatg acctccttct ctgtagcccc tccctaaaaa actcccaaac tcacactgcc  
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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

Met	Arg	Pro	Val	Arg	Leu	Met	Lys	Val	Phe	Val	Thr	Arg	Arg	Ile	Pro
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Ala	Glu	Gly	Arg	Val	Ala	Leu	Ala	Arg	Ala	Ala	Asp	Cys	Glu	Val	Glu
			20				25						30		
Gln	Trp	Asp	Ser	Asp	Glu	Pro	Ile	Pro	Ala	Lys	Glu	Leu	Glu	Arg	Gly
		35				40						45			
Val	Ala	Gly	Ala	His	Gly	Leu	Leu	Cys	Leu	Leu	Ser	Asp	His	Val	Asp
	50					55					60				
Lys	Arg	Ile	Leu	Asp	Ala	Ala	Gly	Ala	Asn	Leu	Lys	Val	Ile	Ser	Thr
65				70					75					80	
Met	Ser	Val	Gly	Ile	Asp	His	Leu	Ala	Leu	Asp	Glu	Ile	Lys	Lys	Arg
			85					90						95	
Gly	Ile	Arg	Val	Gly	Tyr	Thr	Pro	Asp	Val	Leu	Thr	Asp	Thr	Thr	Ala
			100					105					110		
Glu	Leu	Ala	Val	Ser	Leu	Leu	Leu	Thr	Thr	Cys	Arg	Arg	Leu	Pro	Glu
		115					120					125			
Ala	Ile	Glu	Glu	Val	Lys	Asn	Gly	Gly	Trp	Thr	Ser	Trp	Lys	Pro	Leu
	130					135					140				
Trp	Leu	Cys	Gly	Tyr	Gly	Leu	Thr	Gln	Ser	Thr	Val	Gly	Ile	Ile	Gly
145				150					155					160	
Leu	Gly	Arg	Ile	Gly	Gln	Ala	Ile	Ala	Arg	Arg	Leu	Lys	Pro	Phe	Gly
			165					170						175	
Val	Gln	Arg	Phe	Leu	Tyr	Thr	Gly	Arg	Gln	Pro	Arg	Pro	Glu	Glu	Ala
		180					185						190		
Ala	Glu	Phe	Gln	Ala	Glu	Phe	Val	Ser	Thr	Pro	Glu	Leu	Ala	Ala	Gln
	195						200					205			
Ser	Asp	Phe	Ile	Val	Val	Ala	Cys	Ser	Leu	Thr	Pro	Ala	Thr	Glu	Gly

```

      210              215              220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe
225              230              235              240
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln
      245              250              255
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser
      260              265              270
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys
      275              280              285
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr
      290              295              300
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu
305              310              315              320
Pro Met Pro Ser Glu Leu Lys Leu
      325

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<210> 4729
<211> 753
<212> DNA
<213> Homo sapiens

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<400> 4729
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120
cctgttggtg gatttgggga aattttttgt ttgtttttta tgatttgtat ttgactgaga
180
gaaacccact gaagacgtct gcgtgagaat agagaccacc gaggccgact cgcgggcccgc
240
tgcacccacc gccaaaggaca aaaggagccc agcgtacta gctgcacccg attcctccca
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420
aaaagccatt atgcagatgt agatcctgaa aaccagaact ttttacttga atcgaatttg
480
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600
aatactggaa ttgctctttt tataattctc ttgacatttg tgtcaatatt ttccctgtat
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tctgttcac tccttttgaa gactgccaat gaaggagggt ctttattata tgaacaattg
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753

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<210> 4730
<211> 148
<212> PRT
<213> Homo sapiens

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&lt;400&gt; 4730

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Met Lys Lys Ala Glu Met Gly Arg Phe Ser Ile Ser Pro Asp Glu Asp
 1           5           10           15
Ser Ser Ser Tyr Ser Ser Asn Ser Asp Phe Asn Tyr Ser Tyr Pro Thr
 20           25           30
Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
 35           40           45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
 50           55           60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
 65           70           75           80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
 85           90           95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
100           105           110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
115           120           125
Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
130           135           140
Val Gly Lys Leu
145

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&lt;210&gt; 4731

&lt;211&gt; 2417

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4731

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120
ttggaagaca gctgaggaaa aaggcgccaa taagacaaac tcacagatgg gatttatctc
180
cctcttgctt tttttttttt tttttgcccc tggtaaaagt cagaacctgg gatgaccaga
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300
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420
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480
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780

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<210> 4732  
<211> 129  
<212> PRT  
<213> Homo sapiens

<400> 4732  
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20 25 30  
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro  
35 40 45  
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys  
50 55 60  
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala  
65 70 75 80  
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser  
85 90 95  
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu  
100 105 110  
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg  
115 120 125  
Lys

<210> 4733  
<211> 543  
<212> DNA  
<213> Homo sapiens

<400> 4733  
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120  
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tgg  
543

<210> 4734  
 <211> 181  
 <212> PRT  
 <213> Homo sapiens

<400> 4734  
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 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met  
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 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu  
 35 40 45  
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly  
 50 55 60  
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp  
 65 70 75 80  
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln  
 85 90 95  
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu  
 100 105 110  
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val  
 115 120 125  
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg  
 130 135 140  
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys  
 145 150 155 160  
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<210> 4735  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 4735  
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 aggagctgcc ggcggctctg ccaagtccag cagcaatggg cctgtggcca gtgcacagta  
 180  
 cgtgtcccag gcaaaagcct cagctttgca gcagcagcag tactaccagt ggtaccagca  
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<210> 4736  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 4736

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Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser
 20           25           30
Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
 35           40           45
Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
 50           55           60
Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
 65           70           75           80
Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
           85           90

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&lt;210&gt; 4737

&lt;211&gt; 2602

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4737

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1020

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2602

<210> 4738  
 <211> 756  
 <212> PRT  
 <213> Homo sapiens

<400> 4738  
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 His Gln Asp Val Ser Glu Arg Arg Leu Asp Thr Gln Arg Pro Gln Val  
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 Thr Met Trp Glu Arg Asp Val Ser Ser Asp Arg Gln Glu Pro Gly Arg  
 35 40 45  
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln  
 50 55 60  
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu  
 65 70 75 80  
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu  
 85 90 95  
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala  
 100 105 110  
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu  
 115 120 125  
 Val Val Arg Lys Asn Leu Glu Gly Arg Gln Arg Glu Leu Glu Glu  
 130 135 140  
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His  
 145 150 155 160  
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys  
 165 170 175  
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu  
 180 185 190  
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys  
 195 200 205  
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg  
 210 215 220  
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp  
 225 230 235 240  
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu  
 245 250 255  
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val  
 260 265 270  
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg  
 275 280 285  
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys  
 290 295 300  
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val  
 305 310 315 320  
 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu  
 325 330 335  
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln  
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 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val  
 355 360 365  
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

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Ala Gln Glu Ala Arg Arg Trp Trp Gln Gln Gln Thr Ala Ser Ala Glu
385              390              395              400
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      405              410              415
Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420              425              430
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
      435              440              445
Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450              455              460
Ser Cys Pro Leu Pro Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465              470              475              480
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
      485              490              495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500              505              510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515              520              525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
      530              535              540
Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
545              550              555              560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565              570              575
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
      580              585              590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595              600              605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610              615              620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625              630              635              640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645              650              655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660              665              670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
      675              680              685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690              695              700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705              710              715              720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
      725              730              735
Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
      740              745              750
Gln Met Ser Ser
      755

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&lt;210&gt; 4739

&lt;211&gt; 684

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 120  
 tagccctctc tcttgctcct ttaaactctg aacttctagg atgggagaat gggaactttt  
 180  
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 240  
 gttcattact ataccatggc tgaggtcttc ctgggcacca ggccctgggc tcagcacttg  
 300  
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 360  
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 480  
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<210> 4740  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 4740  
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 Pro Ala Val Thr Gln Leu Ser His Leu Arg Gly Ser Leu Asp Ala Ala  
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 Trp Leu Ser Asp Lys Asp Lys Glu Lys Ile Gln Met Ser Thr Arg Ala  
 35 40 45  
 Val His Ile Leu Trp Val Ser Trp Glu Gln Gly Trp Ala Val Pro Glu  
 50 55 60  
 Ala Pro Ser Gln Pro Ala Pro Gln Ala Ala Asn Gly Ser Leu Leu Leu  
 65 70 75 80  
 Gly Gln Gly Ile Cys Gly Gln Glu Ser Thr Leu Val Arg Arg Arg Leu  
 85 90 95  
 Ala Ser Asn Thr Gln Pro Cys Leu Arg Ala Pro Ala Val Glu Gly Ser  
 100 105 110  
 Gly Arg Val Gln Gly Ala Asp  
 115

<210> 4741  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens



<400> 4741  
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 120  
 ttccgaaaaa aagaggggaa ttttttaaaa aaccgaaaag gggggaagg ggggggtata  
 180  
 aaagataaaa tttgggtttt tgggggggaa aatttgaca cccaccctc gggttttttt  
 240  
 tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa attttttctt taatttccaa  
 300  
 ataaaaaaa aatgggggttc caaatcatt gaaaaatagg ggggactcca aaaccttgaa  
 360  
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 411

<210> 4742  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 4742  
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 1 5 10 15  
 Phe Phe Leu Gly Pro Pro Phe Lys Ile Phe Trp Gly Gly Glu Lys Lys  
 20 25 30  
 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu  
 35 40 45  
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe  
 50 55 60  
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg  
 65 70 75 80  
 Lys Thr Pro Phe Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys  
 85 90 95  
 Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn  
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<210> 4743  
 <211> 473  
 <212> DNA  
 <213> Homo sapiens

<400> 4743  
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 120  
 gagtgattga gtcccggtat ctgcagtatg aaaagaagac aaccctaaag gtcctgcag  
 180  
 gagatgggtc acagaccga gggaagatgt ctgaagggtg aaggaaatcc agcctgctcc  
 240  
 agaaaagcaa agcagatagc agtgggggtcg gaaagggtga cctgcagtcc acgttgctgg  
 300

aagggcatgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg  
 360  
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatttt  
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 473

<210> 4744  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 4744  
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 20 25 30  
 Arg Val Ile Glu Ser Arg Tyr Leu Gln Tyr Glu Lys Lys Thr Thr Gln  
 35 40 45  
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu  
 50 55 60  
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser  
 65 70 75 80  
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly  
 85 90 95  
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile  
 100 105 110  
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu  
 115 120 125  
 Ser Thr Ser Phe Ser Ala Pro Arg Lys Lys Ser Pro Asp Leu Ser Glu  
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 Ala Asn Gly Met Met Glu  
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<210> 4745  
 <211> 666  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 360  
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cccgaatctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat  
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 540  
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 666

<210> 4746  
 <211> 221  
 <212> PRT  
 <213> Homo sapiens

<400> 4746  
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 Ser Ala Gly Ile Gln Arg Ala Gln Ile Gln Lys Glu Leu Trp Arg Ile  
 35 40 45  
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr  
 50 55 60  
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr  
 65 70 75 80  
 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu  
 85 90 95  
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu  
 100 105 110  
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro  
 115 120 125  
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser  
 130 135 140  
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp  
 145 150 155 160  
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala  
 165 170 175  
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile  
 180 185 190  
 Arg Arg Tyr Gln Gln Ala Cys Leu Arg Glu Lys Lys Lys Gly Leu Asn  
 195 200 205  
 Val Ile Gly Ala Ser Asp Gln Ser Pro Leu Gln Ser Pro  
 210 215 220

<210> 4747  
 <211> 1091  
 <212> DNA  
 <213> Homo sapiens

<400> 4747  
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 ggctgcagcc tccggcactt tgcttgcgaa cagaacctgc tgtcgcggcc agatggctct  
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 240  
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 840  
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 960  
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 1080  
 aaaaaaaaaa a  
 1091

&lt;210&gt; 4748

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4748

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			20					25				30			
Thr	Gly	Ser	Ser	Pro	Arg	Gly	Pro	Gly	Cys	Ser	Leu	Arg	His	Phe	Ala
		35				40				45					
Cys	Glu	Gln	Asn	Leu	Leu	Ser	Arg	Pro	Asp	Gly	Ser	Ala	Ser	Phe	Leu
	50				55					60					
Gln	Gly	Asp	Thr	Ser	Val	Leu	Ala	Gly	Val	Tyr	Gly	Pro	Ala	Glu	Val
65					70				75					80	
Lys	Val	Ser	Lys	Glu	Ile	Phe	Asn	Lys	Ala	Thr	Leu	Glu	Val	Ile	Leu

3923

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780  
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900  
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&lt;213&gt; Homo sapiens

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Asp His Leu Thr Asn Asn Arg Asn Asp Leu Ile Ser Lys Glu Glu Gln
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Lys Arg Lys Asp Val Lys Lys Asp Thr Thr Asp Lys Ser Ser Lys Pro
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Gln Ile Lys Arg Gly Lys Arg Arg Tyr Cys Asn Thr Glu Glu Cys Leu
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Lys Thr Gly Ser Pro Gly Lys Lys Glu Glu Lys Ala Lys Asn Lys Glu
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Ser Leu Cys Met Glu Asn Ser Ser Thr Ala Leu Gln Met Lys Met Lys
305          310          315          320
Lys Asn Lys Ala Lys Met Thr Pro Thr Lys Lys Tyr Asn Gly Leu Glu
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Glu Lys Arg Lys Ser Leu Arg Thr Thr Gly Phe Tyr Ser Gly Phe Ser
      340          345          350
Glu Val Ala Glu Lys Arg Ile Lys Leu Leu Asn Asn Ser Asp Glu Arg
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Phe Asp Ala Ser Val Ser Ser Ser Ser Ser Asn Gln Pro Glu Pro Glu
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His Pro Glu Lys Ala Cys Thr Gly Gln Lys Arg Val Lys Asp Ala Gln
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Val Val Asn Asn Thr Lys Lys Gly Lys Gly Thr Asn Ser Ser Asp Ser
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Glu Glu Leu Ser Ala Gly Glu Ser Ile Thr Lys Ser Gln Pro Val Lys
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Thr Gln Ser Pro Gly Lys Cys Gly Lys Asn Gly Asp Lys Asp Pro Asp
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Gln Met Ser Asp Leu Glu Asn Met Thr Ser Ala Glu Arg Ile Thr Ile
          675          680          685
Leu Gln Glu Lys Leu Gln Glu Asn Gln Lys His Tyr Leu Ser Leu Lys
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Ser Glu Val Ala Ser Ile Asp Arg Arg Arg Lys Arg Leu Lys Lys Lys
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&lt;210&gt; 4755

&lt;211&gt; 2093

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4755

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 <211> 188  
 <212> PRT  
 <213> Homo sapiens

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 <212> DNA  
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<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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			20					25					30		
Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
			35				40					45			
Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
	50					55					60				
Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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<210> 4759

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<212> DNA

<213> Homo sapiens

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<210> 4760

<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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		20						25					30		
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
		35					40					45			
Phe	Leu	Pro	Leu	Trp	Asp	Val	Ala	Ala	Thr	Asp	Phe	Gly	Gln	Thr	Asn
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

<400> 4761

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<210> 4762

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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Lys	Gly	Trp	Pro	Pro	Lys	Tyr	Ser	Thr	Trp	Glu	Pro	Glu	Glu	His	Ile	35	40	45	
Leu	Asp	Pro	Arg	Leu	Val	Met	Ala	Tyr	Glu	Glu	Lys	Glu	Glu	Arg	Asp	50	55	60	
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Ala	His	Lys	Tyr	Leu	Arg	Leu	Ser	Arg	Lys	Lys	Phe	Pro	Pro	Arg	Gly	145	150	155	160
Pro	Asn	Leu	Glu	Ser	His	Ser	His	Arg	Arg	Glu	Leu	Phe	Leu	Gln	Glu	165	170	175	
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Ala	Gln	Pro	Pro	Glu	Glu	Glu	Ala	Asp	Ala	Asp	Leu	Ala	Glu	Gly	Pro	195	200	205	
Pro	Pro	Trp	Thr	Pro	Ala	Leu	Pro	Ser	Ser	Glu	Val	Thr	Val	Thr	Asp	210	215	220	
Ile	Thr	Ala	Asn	Ser	Ile	Thr	Val	Thr	Phe	Arg	Glu	Ala	Gln	Ala	Ala	225	230	235	240
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<212> DNA  
<213> Homo sapiens

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1440

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&lt;210&gt; 4764

&lt;211&gt; 719

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4764

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Asp	Glu	Arg	Val	Ala	Pro	Asn	Phe	Lys	Thr	Glu	Pro	Ile	Glu	Thr	Lys
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Phe	Tyr	Glu	Thr	Lys	Glu	Glu	Ser	Tyr	Ser	Pro	Ser	Lys	Asp	Arg	Asn
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Gln	Ile	Glu	Glu	Pro	Asp	Pro	Pro	Glu	Met	Glu	Thr	Ser	Leu	Asp	Ser



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Ser	Glu	Met	Ala	Lys	Asp	Leu	Ser	Ser	Lys	Thr	Ala	Leu	Ser	Ser	Thr
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Glu	Ser	Cys	Thr	Met	Lys	Gly	Glu	Glu	Lys	Ser	Pro	Lys	Thr	Lys	Lys
		210				215					220				
Asp	Lys	Arg	Pro	Pro	Ile	Leu	Glu	Cys	Leu	Glu	Lys	Leu	Glu	Lys	Ser
225					230					235					240
Lys	Lys	Thr	Phe	Leu	Asp	Lys	Asp	Ala	Gln	Arg	Leu	Ser	Pro	Ile	Pro
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Val	Leu	Glu	Pro	Glu	Asn	Lys	Gln	Glu	Lys	Thr	Glu	Lys	Glu	Glu	Glu
				405					410					415	
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			420					425					430		
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	660		665	670
Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile				
	675		680	685
Lys Glu Ala Asp Gly Gly Gly Val Gly Arg Gly Lys Asp Ile Ser Thr				
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Ile Thr Gly His Arg Gly Lys Asp Ile Ser Thr Ile Leu Asp Glu				
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&lt;210&gt; 4765

&lt;211&gt; 1707

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4765

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&lt;210&gt; 4766

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4766

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			20					25					30		
Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	Thr	Trp	Arg
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Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr	Tyr	Gln	Leu	Ser	Asn
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		100				105					110				
Ser	Leu	Gln	His	Val	Ala	Glu	Lys	Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys
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Cys	Lys	Tyr	Phe	Cys	Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn
		165					170						175		
Lys	Gln	Glu	Asp	Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe

				180					185					190		
Phe	Tyr	Ser	Tyr	Trp	Thr	Gly	Leu	Leu	Arg	Pro	Asp	Ser	Gly	Lys	Ala	
		195					200					205				
Trp	Leu	Trp	Met	Asp	Gly	Thr	Pro	Phe	Thr	Ser	Glu	Leu	Phe	His	Ile	
	210					215					220					
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225					230					235					240	
Asn	Gly	Met	Ile	Phe	Ser	Lys	Asp	Cys	Lys	Glu	Leu	Lys	Arg	Cys	Val	
				245					250					255		
Cys	Glu	Arg	Arg	Ala	Gly	Met	Val	Lys	Pro	Glu	Ser	Leu	His	Val	Pro	
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<210> 4767
<211> 1380
<212> DNA
<213> Homo sapiens
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1020

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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu
	35					40						45			
Gly	Glu	Asp	Ser	Ala	Gly	Ser	Ala	Leu	Glu	Glu	Asp	Asp	Glu	Asp	Asp
	50					55					60				
Glu	Gly	Asp	Gly	Glu	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu	
65				70					75					80	
Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile
			85					90						95	
His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu
			100					105					110		
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala
		115					120					125			
Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val
	130					135					140				
Glu	Leu	Glu	Lys	Asp	Ser	Glu	Gly	Leu	Gly	Ile	Ser	Ile	Ile	Gly	Met
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Gly	Ala	Gly	Ala	Asp	Met	Gly	Leu	Glu	Lys	Leu	Gly	Ile	Phe	Val	Lys
			165					170						175	
Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val
			180					185					190		
Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr
		195					200					205			
Gln	Ser	Phe	Ala	Ala	Ser	Val	Leu	Arg	Asn	Thr	Lys	Gly	Arg	Val	Arg
	210					215					220				
Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln
225				230					235					240	
Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met
			245					250						255	
Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu
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Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly

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 Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu  
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 Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu  
 355                      360                      365  
 Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val  
 370                      375                      380  
 Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg  
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 Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu  
 405                      410                      415  
 Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu  
 420                      425                      430  
 Ser Glu Leu Ala Arg Lys Glu Glu Met Asp Lys Leu Leu Asp Lys Ile  
 435                      440                      445  
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&lt;210&gt; 4769

&lt;211&gt; 1533

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4769

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<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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&lt;211&gt; 2653

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4771

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 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg  
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 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys  
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      35              40              45
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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
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<211> 2200

<212> DNA

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&lt;210&gt; 4778

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4778

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&lt;211&gt; 4467

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4779

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&lt;211&gt; 1241

&lt;212&gt; PRT

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&lt;400&gt; 4780

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<213> Homo sapiens

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<212> DNA
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Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys	Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser	115	120	125	
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Ala	Gln	His	Ser	Arg	Val	His	Ser	Gly	Glu	Arg	Pro	Phe	Gln	Cys	Pro	165	170	175	
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&lt;210&gt; 4790

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4790

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Thr Phe Glu Leu Phe Leu Thr Ile Ile Asp Gly Pro Ala Asn Tyr Asn
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Val Asp Leu Pro Phe Met Tyr Ser Ile Thr Tyr Ala Ala Phe Ala Ile
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Gln Arg Tyr Ala Gln Ala Phe His Thr Arg Gly Ser Glu Asp Leu Asp
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Lys Asp Ser Val Glu Lys Leu Glu Leu Gly Cys Pro Phe Ser Pro His
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&lt;210&gt; 4791

&lt;211&gt; 4481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4791

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<210> 4794

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4794

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Asp	Thr	Pro	Glu	Ala	Lys	Cys	Ser	Met	Gln	Gln	Pro	Gly	Ile	Gln	Ala
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Thr	Ser	Ser	Val	Ala	Gly	Arg	Gln	Pro	Gly	Ala	Phe	Ser	Glu	Glu	Lys
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Gly	Pro	Val	Ile	Ile	Pro	Gln	Met	Leu	Leu	Glu	Leu	Trp	Ala	Gln	Gly
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Asn	Arg	Pro	Ile	Met	Val	Leu	Pro	Glu	Gly	Leu	His	Leu	Leu	Tyr	Thr
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Arg	His	Lys	Ile	Arg	Leu	Pro	Arg	Glu	Glu	Pro	Ser	Asp	Ser	Val	Gln
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<210> 4795

<211> 2117

<212> DNA

<213> Homo sapiens

<400> 4795

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2117

&lt;210&gt; 4796

&lt;211&gt; 541

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4796

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 35          40          45
Gly Ser Ser Glu Leu Arg Ala Gln Ala Cys Thr Ala His Ser Ala Gly
 50          55          60
Val Pro Gly Leu Ser Ile Pro Thr Ser Ser Trp Leu Pro Leu Met Lys
 65          70          75          80
Gly Pro Pro Glu Val Ala Gln Ser Asn Ile Gln Thr Gln Pro Val Asn
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Arg Glu Met Asp Ala Ala Gly Phe Asp Phe Ser Leu Pro Cys Thr Gln
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130          135          140
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165          170          175
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180          185          190
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Pro Tyr Gly Phe Leu Ala Trp Gly His Tyr Ile Ser Ala Met Asp Pro
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465                470                475                480
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Gly Cys Ser Ser Ser Ser Ser Asp Ser Met Gly Arg Lys Ala Trp Val
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Leu Phe Asn Pro Gln Gln Thr Thr Leu Arg Trp Ala Leu
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&lt;210&gt; 4797

&lt;211&gt; 2848

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4797

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 <213> Homo sapiens

<400> 4798  
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Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
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Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
      340              345              350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
      355              360              365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
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<210> 4799

<211> 358

<212> DNA

<213> Homo sapiens

<400> 4799

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<210> 4800

<211> 119

<212> PRT

<213> Homo sapiens

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      20              25              30
Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
      35              40              45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
      50              55              60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
      65              70              75              80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

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Pro Ser Gly His Cys Met Ile					
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&lt;210&gt; 4801

&lt;211&gt; 1447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4801

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1260

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<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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Ser	Thr	Leu	Gly	Ala	Gly	Ile	Val	Ile	Ala	Glu	Ala	Leu	Gln	Asn	Gln
		35					40					45			
Leu	Ala	Trp	Leu	Glu	Asn	Val	Trp	Leu	Trp	Ile	Thr	Phe	Leu	Gly	Asp
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Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
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Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
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Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
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Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
	130					135				140					
Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
145					150				155					160	
Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
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Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
	180						185					190			
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
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225					230				235					240	
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
			245					250					255		
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
	260						265					270			
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
	275					280					285				
Ala	Leu	Gly	Leu	Gly	Ile	Ala	Leu	His	Ser	Pro	Cys	Tyr	Ala	Gln	Val
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305          310          315          320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln
          325          330          335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
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Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
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Gln Glu Ala Pro Pro Ile His Ser Ser
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&lt;210&gt; 4803

&lt;211&gt; 564

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4803

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564

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&lt;210&gt; 4804

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4804

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Met Thr Asn His Phe Ser Phe Ile His Thr Val Ala Phe Tyr Ile Ser
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
          20          25          30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
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Ile Met Ser Tyr Ala
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&lt;210&gt; 4805

&lt;211&gt; 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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Arg	Ser	Asn	Trp	Lys	Ile	Gln	Ser	Leu	Lys	Asp	Glu	Ile	Thr	Ser	Glu	35	40	45	
Lys	Leu	Asn	Gly	Val	Lys	Leu	Trp	Ile	Thr	Ala	Gly	Pro	Arg	Glu	Lys	50	55	60	
Phe	Thr	Ala	Ala	Glu	Phe	Glu	Ile	Leu	Lys	Lys	Tyr	Leu	Asp	Thr	Gly	65	70	75	80
Gly	Asp	Val	Leu	Val	Met	Leu	Gly	Glu	Gly	Gly	Glu	Ser	Arg	Phe	Asp	85	90	95	
Thr	Asn	Ile	Asn	Phe	Leu	Leu	Glu	Glu	Tyr	Gly	Ile	Met	Val	Asn	Asn	100	105	110	
Asp	Ala	Val	Val	Arg	Asn	Val	Tyr	His	Lys	Tyr	Phe	His	Pro	Lys	Glu	115	120	125	
Ala	Leu	Val	Ser	Ser	Gly	Val	Leu	Asn	Arg	Glu	Ile	Ser	Arg	Ala	Ala	130	135	140	
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Ala	Gln	Ala	Leu	Thr	Phe	Val	Tyr	Pro	Phe	Gly	Ala	Thr	Leu	Ser	Val	165	170	175	
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Leu	Asn	Arg	Pro	Ile	Leu	Ala	Phe	Tyr	His	Ser	Lys	Asn	Gln	Gly	Gly	195	200	205	
Lys	Leu	Ala	Val	Leu	Gly	Ser	Cys	His	Met	Phe	Ser	Asp	Gln	Tyr	Leu	210	215	220	
Asp	Lys	Glu	Glu	Asn	Ser	Lys	Ile	Met	Asp	Val	Val	Val	Phe	Gln	Trp	225	230	235	240
Leu	Thr	Thr	Gly	Asp	Ile	His	Leu	Asn	Gln	Ile	Asp	Ala	Glu	Asp	Pro	245	250	255	
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Arg	Asn	Arg	Glu	Cys	Leu	Gln	Glu	Ser	Asp	Glu	Ile	Pro	Arg	Asp	Phe	275	280	285	
Thr	Thr	Leu	Phe	Asp	Leu	Ser	Ile	Phe	Gln	Leu	Asp	Thr	Thr	Ser	Phe	290	295	300	
His	Ser	Val	Ile	Glu	Ala	His	Glu	Gln	Leu	Asn	Val	Lys	His	Glu	Pro	305	310	315	320
Leu	Gln	Leu	Ile	Gln	Pro	Gln	Phe	Glu	Thr	Pro	Leu	Pro	Thr	Leu	Gln	325	330	335	
Pro	Ala	Val	Phe	Pro	Pro	Ser	Phe	Arg	Glu	Leu	Pro	Pro	Pro	Pro	Leu				



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<211> 313

<212> PRT

<213> Homo sapiens

<400> 4808

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			20					25					30		
Thr	Val	Tyr	Ile	Thr	Gly	Arg	His	Leu	Asp	Thr	Leu	Arg	Val	Val	Ala
		35					40					45			
Gln	Glu	Ala	Gln	Ser	Leu	Gly	Gly	Gln	Cys	Val	Pro	Val	Val	Cys	Asp
	50					55					60				
Ser	Ser	Gln	Glu	Ser	Glu	Val	Arg	Ser	Leu	Phe	Glu	Gln	Val	Asp	Arg
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Glu	Gln	Gln	Gly	Arg	Leu	Asp	Val	Leu	Val	Asn	Asn	Ala	Tyr	Ala	Gly
			85					90						95	
Val	Gln	Thr	Ile	Leu	Asn	Thr	Arg	Asn	Lys	Ala	Phe	Trp	Glu	Thr	Pro
		100						105					110		
Ala	Ser	Met	Trp	Asp	Asp	Ile	Asn	Asn	Val	Gly	Leu	Arg	Gly	His	Tyr
		115					120					125			
Phe	Cys	Ser	Val	Tyr	Gly	Ala	Arg	Leu	Met	Val	Pro	Ala	Gly	Gln	Gly
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Leu	Ile	Val	Val	Ile	Ser	Ser	Pro	Gly	Ser	Leu	Gln	Tyr	Met	Phe	Asn
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Val	Pro	Tyr	Gly	Val	Gly	Lys	Ala	Ala	Cys	Asp	Lys	Leu	Ala	Ala	Asp
			165					170					175		
Cys	Ala	His	Glu	Leu	Arg	Arg	His	Gly	Val	Ser	Cys	Val	Ser	Leu	Trp
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Pro	Gly	Ile	Val	Gln	Thr	Glu	Leu	Leu	Lys	Glu	His	Met	Ala	Lys	Glu
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			245						250					255	
Asp	Leu	Ala	Arg	Arg	Tyr	Gly	Leu	Arg	Asp	Val	Asp	Gly	Arg	Pro	Val
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Gln	Asp	Tyr	Leu	Ser	Leu	Ser	Ser	Val	Leu	Ser	His	Val	Ser	Gly	Leu
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Gly	Trp	Leu	Ala	Ser	Tyr	Leu	Pro	Ser	Phe	Leu	Arg	Val	Pro	Lys	Trp
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Ile	Ile	Ala	Leu	Tyr	Thr	Ser	Lys	Phe							
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 <211> 999  
 <212> DNA  
 <213> Homo sapiens

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<210> 4810  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 4810  
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 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala  
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Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met				
65	70	75	80	
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln				
	85	90	95	
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro				
	100	105	110	
Leu Pro Ser Gly Gln Pro Cys Pro				
	115	120		

&lt;210&gt; 4811

&lt;211&gt; 3207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4811

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<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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Leu	Arg	Thr	Leu	Leu	Glu	Glu	Ala	Val	Pro	Leu	Ser	Cys	Ala	Leu	Pro
		20						25					30		
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
		35				40						45			
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
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Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
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Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
		85						90					95		
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
		100						105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
		115				120						125			
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
	130					135					140				
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
145				150					155					160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
			165					170					175		
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
		180						185					190		
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
	195					200					205				
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
	210					215					220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
225					230					235				240	
Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly

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                245                250                255
Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
                260                265                270
Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
                275                280                285
Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
                290                295                300
Gln Ser
305

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<210> 4813  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

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120
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180
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240
aacacagatt tgaacattca cgaagaaact tccagggtga gccaaaccct cttctcccc
300
actgcacctc caagcagcct tcctgaaagg gaaaagagta cagacctgcc ctctggggag
360
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400

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<210> 4814  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

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<400> 4814
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Phe Gln Glu Gly Cys Leu Glu Val Gln Trp Gly Gly Arg Gly Phe Gly
 20          25          30
Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
 35          40          45
Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
 50          55          60
Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
 65          70          75          80
Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
 85          90          95
Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
100          105          110
Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
115          120          125

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<210> 4815  
 <211> 528  
 <212> DNA  
 <213> Homo sapiens

<400> 4815  
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 60  
 atttgatga tacaccactg actttctttg tttggaatac acgttatgaa ccttttctgg  
 120  
 agcatgtcta caagctctgt acgcaaacga tctgaagggtg aagagaagac attaacaggg  
 180  
 gacgtgaaaa ccagtcctcc acgaactgca ccaaagaaac agctaccttc tattcccaaa  
 240  
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc  
 300  
 acccatgcct cttacggacc cttctacctg gaatattcac tccttgacaga atttaccttg  
 360  
 gttgtgaagc agaagctacc aggcgtctat gtgcagccat cttatcgctc tgcattaatg  
 420  
 tagtttgag taatattcat acggcatgga cttaccaag atggcgtatt taagtttaca  
 480  
 gtttacatcc ctgataacta tccagatggg gactgtccac gcttggtg  
 528

<210> 4816  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 4816  
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 Glu Gly Glu Glu Lys Thr Leu Thr Gly Asp Val Lys Thr Ser Pro Pro  
 20 25 30  
 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu  
 35 40 45  
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn  
 50 55 60  
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu  
 65 70 75 80  
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val  
 85 90 95  
 Gln Pro Ser Tyr Arg Ser Ala Leu Met  
 100 105

<210> 4817  
 <211> 1106  
 <212> DNA  
 <213> Homo sapiens

<400> 4817  
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 120  
 aagtctctgg agaacattcg gcagctcggc atcatcgtca gtgacttcca gcccagcagc  
 180  
 caggccgggc tcaaccaaaa gctgaatttt attgttactg gcttacagga tattgacaag  
 240  
 tgcagacagc agcttcatga tattactgta ccgttagaag tttttgaata tatagatcaa  
 300  
 ggtcgaaatc cccagctcta caccaaagag tgcttgaga gggctctagc taaaaatgag  
 360  
 caagttaaag gcaagatcga caccatgaag aaatttataa gcctgttgat tcaagaactt  
 420  
 tctaaagtat ttccggaaga catggctaag tatcgaagca tccgggggga ggatcaccgc  
 480  
 ccttcttaac cagctcaccc tccctgtgtg aagatcccc gggactgca tgccgctga  
 540  
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 1080  
 aaaaaaaaaa aaaaaaaaaa aaaaaa  
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&lt;210&gt; 4818

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4818

Met	Ala	Glu	Lys	Phe	Asp	His	Leu	Glu	Glu	His	Leu	Glu	Lys	Phe	Val
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Glu	Asn	Ile	Arg	Gln	Leu	Gly	Ile	Ile	Val	Ser	Asp	Phe	Gln	Pro	Ser
			20					25					30		
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
			35				40					45			
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
			50			55				60					
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65					70				75					80	
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

	85		90		95
Gly Lys Ile Asp Thr Met Lys Lys Phe Lys Ser Leu Leu Ile Gln Glu					
	100		105		110
Leu Ser Lys Val Phe Pro Glu Asp Met Ala Lys Tyr Arg Ser Ile Arg					
	115		120		125
Gly Glu Asp His Pro Pro Ser					
	130		135		

&lt;210&gt; 4819

&lt;211&gt; 1655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4819

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 gatgtggagc ctgagtcttg gagagaagcc ttcaagcagc attaccttgc atccaagaca  
 300  
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 360  
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 420  
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 720  
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 780  
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 1200

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 1320  
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 1380  
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 1560  
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 1620  
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<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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Met	Glu	Ala	Gly	Gly	Leu	Pro	Leu	Glu	Leu	Trp	Arg	Met	Ile	Leu	Ala	20	25	30	
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala	35	40	45	
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu	50	55	60	
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro	65	70	75	80
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu	85	90	95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile	100	105	110	
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val	115	120	125	
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala	130	135	140	
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln	145	150	155	160
Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys	165	170	175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr	180	185	190	
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile	195	200	205	
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe	210	215	220	
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys	225	230	235	240
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu				

245 250 255  
 Cys Val Leu Glu Asn Cys Glu Phe Val Gly Ser Glu Asn Asn Ser Val  
 260 265 270  
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr  
 275 280 285  
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp  
 290 295 300  
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp  
 305 310 315 320  
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr  
 325 330 335  
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln  
 340 345 350  
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp  
 355 360 365  
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp  
 370 375 380  
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val  
 385 390 395 400  
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln  
 405 410 415  
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys  
 420 425 430  
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile  
 435 440 445  
 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser  
 450 455 460  
 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr  
 465 470 475 480  
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp  
 485 490 495  
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly  
 500 505 510  
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val  
 515 520 525  
 Asp Ile Arg Lys Lys Ser Asn Pro Leu Gln Ile Gly Asn Pro Arg Ala  
 530 535 540  
 Glu Phe Leu Ala Ser Arg Ala  
 545 550

&lt;210&gt; 4821

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4821

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 120  
 agagaactgg gggagctgct gggcgaagca cgctactacc tgggtgcaggg cctgattgag  
 180  
 gactgccagc tggcgctgca gcaaaaaagg gagacgctgt ccccgctgtg cctcatcccc  
 240



atggtgacat ctccccggga ggagcagcag ctcttgcca gcacctcaa gcccggtgtg  
 300  
 aagctcctgc acaaccgcag taacaacaag tactcctaca ccagcacttc agatgacaac  
 360  
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 420  
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 480  
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<210> 4822  
 <211> 195  
 <212> PRT  
 <213> Homo sapiens

<400> 4822  
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 Ser Val Pro Leu Pro Glu Ser Thr Arg Glu Leu Gly Glu Leu Leu Gly  
 35 40 45  
 Glu Ala Arg Tyr Tyr Leu Val Gln Gly Leu Ile Glu Asp Cys Gln Leu  
 50 55 60  
 Ala Leu Gln Gln Lys Arg Glu Thr Leu Ser Pro Leu Cys Leu Ile Pro  
 65 70 75 80  
 Met Val Thr Ser Pro Arg Glu Glu Gln Gln Leu Leu Ala Ser Thr Ser  
 85 90 95  
 Lys Pro Val Val Lys Leu Leu His Asn Arg Ser Asn Asn Lys Tyr Ser  
 100 105 110  
 Tyr Thr Ser Thr Ser Asp Asp Asn Leu Leu Lys Asn Ile Glu Leu Phe  
 115 120 125  
 Asp Lys Leu Ala Leu Arg Phe His Gly Arg Leu Leu Phe Leu Lys Asp  
 130 135 140  
 Val Leu Gly Asp Glu Ile Cys Cys Trp Ser Phe Tyr Gly Gln Gly Arg  
 145 150 155 160  
 Lys Ile Ala Glu Val Cys Cys Thr Ser Ile Val Tyr Ala Thr Glu Lys  
 165 170 175  
 Lys Gln Thr Lys Val Arg Gly Ala Pro Glu Pro Met Leu Gly Ala Gly  
 180 185 190  
 Gly Gly His  
 195

<210> 4823  
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 <212> DNA  
 <213> Homo sapiens

<400> 4823  
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180  
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240  
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420  
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